THE FORTY-SECOND YEAR.

Companion to the Almanac;

OR,

YEAR-BOOK

OF

GENERAL INFORMATION

FOR

1869.

I.

GENERAL INFORMATION ON SUBJECTS OF MATHEMATICS, NATURAL PHILOSOPHY, NATURAL HISTORY, CHRONOLOGY, GEOGRAPHY, FINE ARTS, POLITICAL ECONOMY, &c.

II.

LEGISLATION, STATISTICS, THE PUBLIC IMPROVEMENTS, AND CHRONICLE OF 1868.

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COMPANION TO THE ALMANAC

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PART I.

GENERAL INFORMATION ON SUBJECTS OF MATHEMATICS, NATURAL PHILOSOPHY, NATURAL HISTORY, CHRONOLOGY, GEOGRAPHY, FINE ARTS, POLITICAL ECONOMY, &c.

I.—ON THE TOTAL ECLIPSE OF THE SUN OF AUGUST 17-18, 1868.

VERY few astronomical phenomena create greater interest in the popular mind than an ordinary partial eclipse of the sun, as generally observed in this country. The fulfilment, to a small fraction of a second, of the instant when the dark limb of the moon first makes an impression on the edge of the solar disk, never fails to point out to the non-scientific observer, in the most striking manner, that the predictions of the astronomer concerning the movements of the heavenly bodies are made with the most absolute certainty. But it is not of ordinary eclipses, or of the accuracy or exactness of astronomical calculations, that we are now about to write, but rather of eclipses of an extraordinary character, those in fact which have left a name in modern astronomical history. Of these, the total eclipses of 1842, 1851, and 1860 are signal examples. Several other interesting and important total eclipses have taken place between these intervals, and, in some cases, valuable observations have been made, but on account of the generally inaccessible region where the greatest phase was visible, the results obtained can bear no comparison in value with those deduced from the eclipses visible in Europe. Among these intermediate total eclipses of the sun, that which occurred on September 6-7, 1858, may be specially mentioned as having been successfully observed in Peru by American astronomers. So far, however, as the duration of the total obscuration is concerned, all have fallen far short of that in the late great solar eclipse of August 17-18, 1868, in which the time of totality reached almost to the possible maximum. Hence the reason why scientific men from all the principal European countries were so eager to avail themselves of an opportunity which can never occur again so favourably for several centuries to come.

The very great popular interest taken in the total eclipse of the sun of August 17-18, 1868, arose therefore from the circumstance that the duration of the total obscuration of the sun by the moon

exceeded that of any previous eclipse within, or far beyond, the memory of the oldest astronomer, or, indeed, of any record in the most ancient of modern observatories. The last eclipse approaching in magnitude to it goes as far back as the year 1433. Had the locality where the greatest phase of the late eclipse occurred been a little more accessible to European astronomers, we have no doubt that the number of observers would have been considerably greater than that composing the celebrated "Himalaya Expedition" of 1860. That this would have been the case is very evident from the recorded number of English astronomers who made pilgrimages to the central line of shadow in the three total eclipses of the sun visible in Europe in 1842, 1851, and 1860. In the first of these years, the Astronomer Royal and the late Mr. Baily were the only Englishmen who felt sufficient interest to make special journeys for the gratification of viewing some of the phenomena which were reputed as being only visible on these occasions. The Astronomer Royal's observations were made on the Superga hill, near Turin. Mr. Baily was stationed at Pavia. The graphic accounts of these astronomers, and the interesting observations of the red protuberances, corona, Baily's beads, and other novel phenomena, may be said to have created that intense desire, shewn by the leading astronomers of all countries, to observe the total eclipse of July 28, 1851, in which the path of the central line of shadow was so favourably situated in Norway, Sweden, and Eastern Prussia. Again, when the eclipse expedition to Spain in July, 1860, was being organized by the Astronomer Royal, a limit was obliged to be put as to the number composing it, so numerous were the applications. Nearly fifty scientific men, with their apparatus, were, however, conveyed to and from Bilbao and Santander in that noble troop-ship, the Himalaya, which was placed at the disposal of the expedition by the Lords Commissioners of the Admiralty at the request of the Astronomer Royal. In short, the observations of the curious phenomena seen at each succeeding eclipse, and the valuable deductions obtained from their discussion, have tended to increase still farther the interest in this branch of astronomical research. When, therefore, a total eclipse was announced by the authorities, with a duration of total darkness of upwards of six minutes of time, nearly double that of former eclipses of modern days, we do not wonder that the epithet "great" should become attached to such a unique phenomenon, and that it should popularly be known as "the *great* eclipse of the sun of August 17–18, 1868."

We must here mention briefly that some little confusion has occurred in this country among non-scientific people as to the exact day on which the eclipse took place. Some writers in the daily newspapers announced its occurrence, without explanation, as being on August 17, while others gave August 18. Now both these dates are correct with regard to Greenwich mean time, for in the first case the reckoning is astronomical where each day begins at noon, while in the second it is civil reckoning, in which the day commences at the midnight preceding the beginning of the astronomical day. In astronomical ephemerides, the times of the occurrences of all the phenomena are always given in astronomical reckoning, hence this

eclipse is said to begin on the earth generally on August 17d. 14h. 34·7m., mean time at Greenwich, and end on the earth generally on August 17d. 19h. 49·2m. Referred to civil reckoning, these times correspond with August 18, at 2h. 34·7m. A.M., and 7h. 49·2m. A.M. respectively. In India and the Eastern Archipelago, where all the observations were expected to be made, the local civil time at which the total obscuration took place varied from about 7.30 A.M. till after 2 P.M. on August 18. Astronomers generally adopt both days by identifying the eclipse as that of August 17–18.

As we have pointed out that the importance of a total eclipse of the sun depends principally on the available time for observation during the totality on the central line of shadow, it will be interesting to compare the greatest length of the interval of total darkness, at accessible stations, during the late eclipse, with those of 1842, 1851, and 1860:—

Duration of Totality at Central Line of Shadow.	Excess of Eclipse of 1868 over those of 1842, 1851, and 1860, at Masulipatam, India.	Excess of Eclipse of 1868 over those of 1842, 1851, and 1860, near the Gulf of Siam.
m. s.	m. s.	m. s.
1842 Lipesk . . . . . = 3 5		
1851 West Coast of Norway = 3 37	1842 = 2 44	1842 = 3 43
1860 North Coast of Spain . = 3 35	1851 = 2 12	1851 = 3 11
1868 Masulipatam . . . = 5 49	1860 = 2 14	1860 = 3 13
1868 Gulf of Siam . . . = 6 48		

At Aden, where several German and Austrian astronomers were stationed, the totality was observed to last about three minutes. Aden, however, was not exactly on the central line. On the western coast of India, at Viziadroog, the interval of total darkness amounted to 5m. 12s.; at Muktul, to 5m. 33s., and on the eastern coast of India on the Bay of Bengal, near Masulipatam, to 5m. 49s.

A glance at the preceding figures is sufficient to exhibit the great superiority of the eclipse of August 17–18, 1868, over its three European predecessors, and also to explain why astronomers and others have looked forward with some anxiety for its successful observation. On these occasions time is indeed precious. The observer who usually arranges in his mind certain phenomena to occupy his attention during the totality, generally finds much undone when the few minutes of total darkness have passed away, apparently more rapidly than ever they did before. To him, the addition of even one minute to the total phase would have been an enormous advantage. The writer of this article has experienced these feelings under similar circumstances. How much better would he have been satisfied with his observations at Christiania, in 1851, moderately successful as they were, had the totality lasted but one minute longer! In all his long astronomical experience he cannot remember such an exciting two minutes and a half, which was the observed length of the total obscuration at Christiania. In 1868, however, the observers on the western coast of India had more than five minutes for their work, on the eastern coast nearly six minutes, while at the station of the French astronomers in Cochin China the duration of the total phase of the eclipse was within a quarter of a minute of seven minutes.

Before a total eclipse of the sun can take place, where the time of

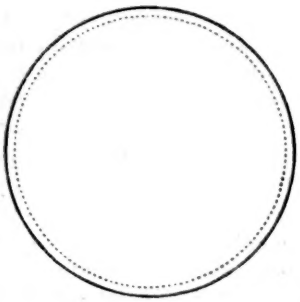
total obscuration equals that of August 17–18, 1868, it is necessary that several conditions be complied with, in regard to the positions of the sun and moon at the time of the phenomenon. It is, however, only at very rare intervals of time that these conditions are satisfied at the same epoch; so rare are they that many centuries will probably pass away before the maximum effect can be again produced. In the first place, no eclipse, even of the most partial character, can happen unless the moon is in her ascending or descending node, or in those parts of her orbit which intersect the ecliptic. In addition to this fundamental origin of all phenomena of this kind in which the moon is concerned, no eclipse of the sun with the maximum period of total obscuration can possibly occur without a favourable coincidence of the following circumstances:—

1. The sun should be in or near his apogee, or greatest distance from the earth, or in more technical words, his angular diameter should be at the minimum.
2. The moon, on the contrary, should be at this time in perigee, or least distance from the earth, so that her angular diameter should appear at the maximum.
3. The position of the sun in the heavens at the instant of total obscuration should be in or near the zenith of the place of observation.

As an example, we will now apply these three conditions to the great eclipse of August 17–18, 1868, when we shall perceive, in that instance, how each condition is approximately fulfilled. 1. *The sun should be in apogee.* As the sun is always farthest from the earth about the 1st of July in each year, he was in this respect more favourably situated in 1842, 1851, and 1860—in which years the eclipses all occurred in the month of July—than in August, 1868. The increase in the angular diameter of the sun in the interval between the date of the sun's apogee and August 17, amounted to about 9″. This quantity, therefore, tended to diminish the time of the total obscuration in some degree from what it would have been, had all the conditions been favourable a month or more earlier. The angular diameter of the sun when in perigee, as determined from Le Verrier's Solar Tables, is 32′ 36″, and when in apogee 31′ 32″. On the morning of August 18, civil reckoning, the diameter was 31′ 41″. It can be plainly perceived from these numbers that although the sun was not at his maximum distance from us on the day of the eclipse, and consequently at his minimum magnitude, yet his apparent diameter had only increased one-seventh part of the difference between his greatest and least apparent angular diameters. This condition may, therefore, be considered as being approximately satisfied; or, at any rate, the sun was in a position favourable for more than an average eclipse. 2. *The moon at the time of conjunction with the sun should be in perigee.* On August 17–18, 1868, this happened to be the case under such very favourable circumstances as rarely occur. We have stated previously that the sun is in apogee in the beginning of July, he is consequently in perigee near the corresponding time in January. The sun, however, returns to these positions of his orbit from year to year, sensibly at the same dates, and with the same

apparent angular magnitude. With the moon, on the contrary, the recurrences of the monthly apogees and perigees are not subject to laws of equal simplicity. By an inspection of the pages of any almanack, every person can at once perceive that, once a month at least, the moon is in each of these positions of her orbit, but a comparison from month to month, or from year to year, will soon show that the dates when they occur are continually varying. If a similar comparison be made of the values of the apparent angular diameter of the moon when in apogee and perigee, we shall also find that these quantities are constantly increasing or diminishing, according to the position of the moon in her orbit. Thus at some perigees she is considerably nearer to the earth than at others. These changes depend principally on the retrogression of the moon's nodes on the ecliptic. The longitude of the nodes diminishes at the rate of about 3′ 10·64″ per day, making a complete revolution over the whole circumference of the ecliptic in about 18·6 years. From these causes the absolute perigee of her orbit takes place at lengthened intervals, independently of her monthly perigee. Now at the conjunction in right ascension of the sun and moon on August 17, at 17h. 13m. 5s. Greenwich mean time, it so happened that the moon was more than usually near to the earth, having only passed one of her nearest perigees a few hours. On the morning of the eclipse we were, therefore, enabled to view the lunar disk from any part of the earth's surface under the most favourable circumstances, her geocentric angular diameter being no less than 33′ 29″, or 1′ 48″ in excess of that of the sun. The second condition, that the moon should be in perigee, was, therefore, complied with almost perfectly. 3. *The position of the sun in the heavens should be in or near the zenith of the place of observation.* One principal reason why the time of the total obscuration during the eclipse of August, 1868, was so exceptionally great, was the small zenith distance of the sun and moon in that part of the central line of shadow where the maximum phase took place. Here the effect of the augmentation of the moon's diameter is the greatest. If the moon be viewed simultaneously from the centre of the earth, and from any part of its surface, a difference in her apparent diameter can always be observed. Owing to the great distances of the stars and planets, the amount of this difference is insensible for every object except our own satellite, whose augmented diameter when at her greatest altitude is sensibly apparent even in the roughest telescopic observations of the moon. The correction to the geocentric angular diameter of the moon for the "augmentation" is always least in the horizon and greatest in the zenith, because she is nearer to us in the latter position by nearly 4000 miles. In longitude 102° 38′ E., and latitude 10° 28′ N., the sun and moon, at the time when the greatest phase took place, on August 18, were actually only two and a half degrees from the zenith. At this place, Gulf of Siam, the geocentric diameter of the moon, magnified as it was by a perigee of more than usual proximity to the earth, was still further increased by a correction for augmentation amounting to 36″. We have thus an apparent diameter of the moon for this locality of 33′ 29″ + 36″ = 34′ 5″, and consequently an excess over the diameter of the sun of 2′ 24″, or

about one-fourteenth part of the augmented lunar diameter. The following diagram shows at sight the relative magnitudes of the sun and moon at those stations where the greatest duration of total darkness took place.



Relative Magnitude of the Sun and Moon, the dotted circle being that of the Sun.

The following comparison of the excess of the geocentric diameter of the moon over that of the sun, with the corresponding diameters of these bodies in former eclipses, shows how favourably the eclipse of 1868 contrasts with its immediate predecessors in this respect. Taking the geocentric angular diameters only, and considering at the same time that the correction due to the augmentation of the moon's diameter was greater in 1868 than in any previous year, a circumstance which would tend to make the differences of the apparent diameters still greater, we find that the excess of the lunar over the solar diameter, on July 7, 1842, was 1′ 11″; on July 28, 1851, it was 1′ 25″; on July 18, 1860, it was 1′ 7″, while in 1868 it amounted to 1′ 47″. It may be mentioned that the full effects on the length of the totality due to the augmentation of the moon's diameter, can only take place when the central line of shadow passes through the tropical regions, and the more north or south of the tropics the latitude of the central line may be, the less influence the augmentations will have on the duration of the shadow path.

Of the three favourable conditions required, and which have been explained above, we have shown that two are satisfied with an almost absolute completeness, or, at least, with a closeness which may fairly be considered *sensibly* perfect, while the remaining condition depending upon the distance of the sun from his apogee is also tolerably approximate, although the apparent solar diameter is a few seconds greater than when the sun is at his minimum magnitude on July 1. The result of this remarkable combination of such favourable positions of the sun and moon, the like of which had not occurred for so many centuries, and probably will not occur again for a very long period, has produced the almost unexampled phase of total darkness witnessed in the late eclipse. Its maximum value we have already given, but we again repeat that in certain localities where the sun and moon were nearly in the zenith, it reached the extraordinary interval of *six minutes and forty-six seconds* of time, according to the calculations of Mr. Hind, and of *six minutes and fifty seconds* on the authority of Dr. Edmund Weiss. The latter astronomer writing on the favourable combination which has produced this large interval of total darkness, remarks that "at the commencement of the eclipse the moon has just passed a perigee of uncommon proximity, and reaches during it the ascending node of her orbit. The eclipsed sun rises, therefore, nearly to the zenith of those countries where the eclipse takes place

at noon: hence the augmentation of the moon's diameter, due to her altitude, is a maximum, and the velocity with which the shadow hurries over the surface of the earth a minimum. The result of the coincidence of all these favourable conditions is an eclipse, which, as to its size, belongs to the largest that can happen in general, and has, indeed, in the annals of mankind no rival, since in the records of ancient eclipses there are to be found only two which may be compared in size with that of August 17–18, 1868, but none in which the totality lasted so long. The first of these is the eclipse of Thales (28th May, 585, B.C.), which is said to have been the first predicted, and to have terminated a bloody war between the Lydians and the Medes. The second was visible on the 17th June, 1433, in Scotland, and the time of its occurrence was long remembered by the people of that country as 'the black hour.'"

The great eclipse of August last was more or less partially visible over Southern Asia, and along the Indian Ocean from the eastern coast of Africa to Australia. Near the eastern shores of Australia the eclipse ended at sunset. Fortunately for science, the central line of the path of the shadow passed across the Indian peninsula at stations very convenient for access. The shadow first touched the earth at sunrise near the scenes of our late Abyssinian exploits, or more properly near Gondar. It then passed over the Straits of Bab-el-Mandeb, including the island of Perim, to Aden, leaving the coasts of Arabia near Cape Ras Furtak. From Arabia the shadow path traversed the ocean nearly in the route of the Peninsular and Oriental Company's steam-ships, the officers of which had special instructions drawn up for their guidance at the suggestion of the Astronomer Royal. The central line of the shadow, the whole breadth of which was about 140 miles, entered India in latitude 16° 35′ N., or a few miles north of of Viziadroog. In crossing the peninsula, it passed over, or very near, several important towns, of which Jamkandi, Muktul, Guntoor, and Masulipatam were sensibly on the central line. The city of Hyderabad, Belgaum, Bejapoor, Kolapoor, Kurnool, Rajahmundry, and other large towns, were included within the shadow north and south of the central line. The northern limit of the shadow passed near Sholapoor, and also about twelve miles north of Hyderabad. The southern limit laid about eight miles north of Goa, twenty miles south of Belgaum, twenty miles north of Bellary, and twenty-four miles south of Kurnool. From India proper, the shadow crossed the Bay of Bengal, through the Mergui Archipelago and the province of Tenasserim. Passing through the Malay Peninsula, it traversed the Gulf of Siam, reaching the northern part of Borneo between the colony of Labuan and the Sarawak country. Progressing onwards, the shadow passed over Celebes and some of the other islands of the Eastern Archipelago; covered completely the southern part of New Guinea, and disappeared finally at the New Hebrides, where the totality began at sunset. In Australia, excepting a small portion of the continent south of Swan River, the eclipse was visible as a partial one. The magnitude of the phases was, however, very unequal, varying in different localities from almost total obscuration in the north to a simple contact

of the limbs of the sun and moon in the south. The sun's altitude was not very great. The following tabular statement gives a correct representation of the track of the shadow, and also its extent north and south of the central line, on the authority of Dr. Weiss, who employed in the calculations the formulæ given in the valuable paper of Professor Hansen on the Theory of Solar Eclipses. (*Theorie der Sonnenfinsternisse und verwandten Erscheinungen.*)

CENTRAL LINE OF SHADOW.

Local Apparent Time.	Longitude, E.	Latitude.	Duration of Totality.	Distance of Sun from Zenith.	Excess of the Moon's Radius.
d. h. m.	° ′	° ′	m. s.	° ′	″
August 17 17 47	35 22·1	11 4·4 N.	..	90 0	..
18 0	38 33·2	11 48·7 „	3 8	87 6	55·0
18 40	47 57·8	13 47·3 „	3 34	77 20	58·1
19 20	56 38·7	15 15·5 „	4 3	67 34	61·0
20 0	64 39·7	16 11·6 „	4 34	57 55	63·7
20 40	72 4·7	16 35·2 „	5 7	48 20	66·1
21 20	78 57·8	16 25·7 „	5 39	38 46	68·2
22 0	85 22·8	15 43·4 „	6 8	29 9	69·9
22 40	91 24·2	14 28·7 „	6 31	19 29	71·2
23 20	97 7·1	12 42·9 „	6 45	9 45	71·9
18 0 0	102 38·0	10 28·1 „	6 48	2 34	72·2
0 40	108 4·5	7 47·1 „	6 39	11 8	71·8
1 20	113 36·2	4 44·7 „	6 19	21 24	70·9
2 0	119 23·6	1 26·6 „	5 51	31 52	69·4
2 40	125 37·0	2 0·6 S.	5 19	42 26	67·3
3 20	132 26·0	5 28·2 „	4 45	52 58	64·8
4 0	139 57·7	8 49·1 „	4 12	63 25	62·0
4 40	148 16·6	11 56·3 „	3 42	73 43	59·0
5 20	157 23·8	14 43·8 „	3 15	83 45	55·9
5 47	163 58·7	16 22·6 „	..	90 0	..

In the table exhibiting the northern and southern limits of the shadow, it will be sufficient for our purpose to give the latitudes only for every alternate time.

NORTHERN AND SOUTHERN LIMITS OF SHADOW.

Local Apparent Time.	Northern Limit. Latitude.	Southern Limit. Latitude.
d. h. m.	° ′	° ′
August 17 18 40	14 42·3 N.	12 52·0 N.
20 0	17 11·0 „	15 12·0 „
21 20	17 29·1 „	15 22·3 „
22 40	15 34·9 „	13 22·2 „
18 0 0	11 35·7 „	9 19·9 „
1 20	5 52·2 „	3 37·0 „
2 40	0 55·4 S.	3 5·4 S.
4 0	7 49·1 „	9 49·5 „
5 20	13 49 9 „	15 37·8 „

With the help of the numbers in the two preceding tables, the exact track of the shadow may be traced on a map or globe. If any of our readers will take the trouble to do this, they will find that, excepting Europe itself, the path of totality could scarcely have fallen in a more accessible situation. In India alone, there are always numerous English scientific men qualified to make the usual astrono-

mical observations of an eclipse, without calling upon the home astronomers to undertake a special journey for the purpose. The Great Trigonometrical Survey of India employs a staff of observers well skilled in the use of ordinary astronomical and surveying instruments. If necessary, these gentlemen could have done all that was required, and, as it happened, the assistance of some of their number was of the utmost value. But although English astronomers were content to leave the care of the two British expeditions to skilled Indian scientific officers, it could not be expected that observers of foreign countries could allow so important an eclipse to take place without also organizing special expeditions for its observation. The temptation was very great when it was known that so lengthened an obscuration could not by any possibility occur in European countries, and that a few weeks' travel would take the observer to the most favourable locality. We believe, therefore, that if an expedition had been organized in a similar manner to that of the celebrated Himalaya expedition in 1860, many English astronomers and other scientific men would have found both the inclination and the time, as easily as the numerous continental astronomers, who have gone to different stations on the central line at the expense of their respective Governments.

We are indebted to Major Tennant, of the Royal Engineers, who was the first person who called special attention to this eclipse in a letter to the secretary of the Royal Astronomical Society, dated January 2nd, 1866. Major Tennant remarks in this letter, that "Masulipatam is readily accessible from both Calcutta and Madras by steamer, and is itself a port at which they call. It will be quite in the power of the Government, if so disposed, to collect at that place a corps of practised observers; and even if they will not do this, I have little doubt that, if their officers are permitted to go, there will be some (possibly enough) observers who would form a party for the occasion. . . . The season is favourable, being a time when the officers of the Indian Survey will be in quarters, and when they could be best spared." It fortunately happened that Major Tennant was in England on leave at this time, and was consequently able to obtain favourable opinions from the Astronomer Royal and from the leading members of the Royal Astronomical Society. It was universally considered that the superintendence of the proposed expedition could not be in better hands than in those of Major Tennant himself. In all the preliminary arrangements Major Tennant was materially aided by the Home and Indian Governments, who jointly undertook a considerable part of the expense, and also by the Council of the Royal Astronomical Society, who appointed a committee consisting of the President, the Astronomer Royal, Mr. De La Rue, Major-General Shortrede, and Lieut.-Col. Strange, "to forward, if possible, the object of making observations during the very long obscuration of the sun." One class of observation which had not been attempted before the eclipse of 1860, was intended to be carried out by the best possible photographic apparatus. The series of photographs of the protuberances so successfully accomplished in 1860, by Mr. De La Rue, at Rivabellosa, near Miranda de Ebro, Spain, proved that, with careful manipulation, the images of those mysteri-

ous appendages of the sun could be represented clearly on the photo-plate. The principal importance of these photographic pictures of the solar phenomena, if taken at stations widely separated, would be to discover whether the rose-coloured prominences do, or do not, undergo any rapid changes of figure. In the eclipse of 1860 a comparison was made for this purpose between the photographs of Mr. De La Rue and another series taken by Father Secchi at Desierto de las Palmas. The interval of time between the observations was however too short to obtain any satisfactory result. In the late eclipse, however, the stations were much more widely separated. In addition to the photographic apparatus, instruments were purchased, or, lent for the occasion, fitted with all the necessary eye-pieces, spectroscopes, and the apparatus necessary for the experiments on the polarization of the red protuberances and the corona. Perhaps the most important observations of all are those of the spectrum of the red protuberances and the corona. For this purpose Major Tennant had a telescope mounted equatorially, but without clock-work, for the convenience of easily following the object steadily. The spectroscope used would allow of the spectrum being compared with a scale of equal parts, so that its peculiarities might be at once referred to the lines of the solar spectrum. A silvered-glass mirror was also mounted equatorially for the photographic observations of the red protuberances, and of the general phase of the eclipse at different moments of totality. The station selected by Major Tennant was Guntoor, close to the central line. He was assisted in the observations by Captain Branfill, an officer attached to the Trigonometrical Survey, and by Sergeant Phillips and Sappers Talbot and Conway, of the Royal Engineers. Captain Branfill was intended to have charge of the polarization apparatus. The mechanical portion of the photography was to be placed under the care of Sergeant Phillips and the two sappers, all of whom were specially trained in England in all the photographic manipulations necessary. This preliminary instruction was obtained principally at Mr. De La Rue's observatory at Cranford, Middlesex. Too much praise can scarcely be given to Mr. De La Rue for the great interest he took in affording every opportunity to Major Tennant and his staff for familiarizing themselves with the use of the Cranford equatorial, and the numerous details of the photographic operations performed with it. Major Tennant had previously gained some experience at Cranford in astronomical photography, having taken part with Mr. De La Rue in the photographic records of the lunar eclipse which occurred on the 13th of September, 1867. We have no doubt, therefore, that had the weather permitted, a most important series of observations would have been the result of these preliminary arrangements and rehearsals made in England and also in India previously to the eclipse.*

* Major Tennant's photographic observations do not appear to have been so successful as was expected. During the totality the eastern part of the sky was clouded over with thin cumulo-strati, which interfered considerably with the photographic energy. As a consequence of this, the protuberances on the photo-plates—which were under exposed—show little more than very dense marks. Six plates were duly exposed, but Major Tennant says that "the heat so concentrated the nitrate-of-silver solution, that, besides showing but faint traces of any corona, they are all covered with spots."

A second expedition, organized principally under the auspices of the Royal Society, was intrusted to the superintendence of Lieut. John Herschel, of the Royal Engineers, son of the illustrious astronomer, Sir J. F. W. Herschel, Bart. Lieut. Herschel, who has had considerable astronomical experience as an assistant on the staff of the Great Trigonometrical Survey of India, was first intended to form one of Major Tennant's party, but when it was proposed to fit out a second expedition he was selected to take it under his special charge. The instruments were provided out of the parliamentary grant annually placed at the disposal of the Council of the Royal Society for scientific purposes. Lieut. Herschel has been directed to confine his observations principally to the spectrum of the rose-coloured protuberances and also of the corona, and to the examination of the light of these appendages of the sun for polarization, for which suitable instruments had been prepared. In the Report of the Council of the Royal Astronomical Society read at their anniversary meeting on February 14, 1868, the following details are given of some of the instruments supplied for the use of Lieut. Herschel and his party:—

"The telescope for the spectrum observations has an aperture of five inches, and an equatorial mounting. It is furnished with a superior driving clock, the rate of which is maintained uniform by a form of pendulum-governor recently invented by Messrs. Cooke and Sons, by whom the whole instrument was constructed. For the observations for polarized light there is a second telescope of three inches aperture, furnished with two analyzers. The observer is instructed to use, first, a double-image prism, and a plate of quartz cut perpendicularly to the axis. If only a small amount of polarized light be present, it will be shown by the complementary tints of the images. The second analyzer, consisting of a Nicol's prism and a compound plate of quartz, showing Savart's bands, may then possibly be employed with advantage to determine the position of the plane in which the light is polarized. In addition to these instruments, four hand spectrum telescopes of the form constructed by Mr. Huggins for the observation of meteors,* have been sent out for use by observers stationed at different places along the central line of the eclipse."

In addition to the two expeditions wholly organized in England, and placed under the superintendence of the two experienced scientific Indian officers, Major Tennant and Lieut. Herschel, Mr. Norman R. Pogson, Government astronomer at Madras, arranged another party in India, of which he himself took the charge. Several appropriate instruments were sent out from England to Mr. Pogson, in whose skilful hands they have doubtless done efficient work. Scientific men in France, Germany, and Austria have also organized expeditions, the expenses of which have been liberally furnished by their respective Governments. A party of French astronomers and physicists, formed chiefly through the influence of M. Le Verrier, has been placed under the control of M. Stéphan, of the Imperial Observatory, and superintendent of the "Succursale" Observatory at Marseilles, in connection with the Imperial Observatory of Paris. The French astronomers were expected to observe the eclipse from a

* See "Proceedings of the Royal Society," Vol. xvi., p. 241.

station on the coast of Cochin China, near the French settlement of Saigon, where the greatest length of totality on the central line of shadow took place. Another party of observers under Dr. Janssen was stationed near Masulipatam, on the eastern coast of India, while a number of astronomers from Northern Germany located themselves near the central line at Bejapoor. This expedition was sent out chiefly at the expense of the Norddeutscher Bundesrath, but all the preliminary arrangements were undertaken by the Astronomische Gesellschaft, or German Astronomical Society, which consists of all the principal astronomers of Germany, and of scientific men interested in the science of astronomy, without regard to nationality. Another German party, consisting of Dr. Hermann Vogel, Dr. Fritsche, and others, fixed their observing station at Aden for the purpose of photographing the different phases of the eclipse. Three Austrian astronomers, Messrs. Oppolzer, Rziha, and Dr. Edmund Weiss, also selected a spot near Aden for their observations. There were thus, at least, eight independent European expeditions located along the path of the central line of shadow, each composed, for the most part, of trained observers. The relative positions of each party on the central line may, at a moment's glance, be perceived by a reference to the following table:—

Observing Party.	Station at or near which the Observations were made.	Longitude, E. (Approximate).	Duration of Totality on Central Line.
		° ′	m. s.
Austrian . . .	Aden	45 10	3 26
German . . .	Aden	,,	,,
Lieut. Herschel .	Jamkandi . . .	75 15	5 20
North German .	Bejapoor. . . .	75 45	5 24
Major Tennant .	Guntoor	80 30	5 47
Dr. Janssen . .	Masulipatam . .	81 10	5 49
Mr. Pogson . .	(Not known, Oct. 1868.)		
French	Coast of Cochin China	105 0	6 42

The greatest attention was given in the eclipses of 1842, 1851, and 1860 to the observation of the absolute number and positions of the rose-coloured prominences, and whether their magnitudes were increased or diminished during the progress of the eclipse. The result has been to conclude definitely that these aëriform masses belong to the sun, either forming portions of the solar envelope, or floating bodies just exterior to it. In the eclipse of August, 1868, although similar observations would be highly important, and probably would not be neglected, yet after the visible motion of the moon over the protuberances, as recorded on the beautiful photographs of Mr. De La Rue, had so conclusively shown that these phenomena are solar appendages, the same necessity for pursuing this branch of inquiry no longer existed. It was therefore considered more important to pay greater attention, in this eclipse, to another section of astronomical observation, which has, in a great measure, been newly developed since the date of the eclipse of 1860. The spectrum analysis of the heavenly bodies by Kirchhoff, Huggins, Padre Secchi, and others,

has opened a new field of investigation which is only yet at its threshold, although it has given us already a considerable insight into the physical composition of the sun, stars, comets, and nebulæ. Great interest was therefore taken in the proposed spectroscopic observations of the protuberances and corona, and most of the expeditions were therefore supplied with the best approved instruments for the purpose. No better opportunity could ever occur, or at least during a very long interval, for similar experiments, and if the result of the eclipse-observations be nothing more than a successful series of spectroscopic experiments, a great advance will be made in our knowledge of solar physics. We consider that, of all the observations, important and interesting as they may be, and however successfully they may have been made, none will be of equal interest to those resulting from the spectrum analysis of the light of the rose-coloured protuberances and the corona.

At the time we write, only partial accounts have been received from some of the stations. Most of them are only of a preliminary character, hurriedly written to catch the mail which closed on the eastern coast of India on the evening of the day of the eclipse. The weather, on the whole, interfered with the observations of nearly all the observers. We have not, however, heard yet whether a complete failure has fallen upon any of the expeditions. On the western coast of India rain fell heavily during the earlier portion of the eclipse, but at the observing stations the clouds partially cleared during the totality, and enabled most of the phenomena to be observed. At Guntoor and Masulipatam the weather was much more favourable.

Within a few days after the eclipse, telegrams were received from Major Tennant, Lieut. Herschel, Dr. Janssen, and the German party at Aden, announcing that important observations had been made, both spectroscopically and photographically. The few words of the telegrams conveyed to the scientific men of Europe that the red protuberances were caught in the spectroscopes, and that each observer had noticed that the spectrum of these bodies consisted of bright lines only. It is therefore a wonderful fact that these errant portions of the solar photosphere actually shine by their own intrinsic light, and that they are really and truly immense masses of luminous gas of several tens of thousands of miles in extent floating irregularly exterior to the usual envelope of the sun. From Lieut. Herschel's telegram, and also from subsequent communications from him and Major Tennant, we infer that the spectrum of the corona is continuous, and indicates that it is produced from the reflected light of the sun. As a matter of history, we give the concise words of the telegrams of Dr. Janssen and Lieut. Herschel. That of Dr. Janssen arrived at Paris on August 21. The following is the exact translation of the words as telegraphed to the President of the Royal Astronomical Society:—"Eclipse observed. Protuberances' spectrum very remarkable and unexpected. Protuberances of a gaseous nature." Lieut. Herschel's telegram runs thus:—"Frequent clouds. One flame caught. Bright lines seen; none of corona. Polarization solar."

Although the few and concise words of the preceding telegrams—since confirmed by letters from some of the principal observers—have

given us such highly important intelligence, yet we look forward with eagerness to the meetings of the ensuing session of the Royal Astronomical, and other societies, including the Academy of Sciences of the French Institute, for more precise information. It is in the Reports of the Transactions of these scientific *réunions* that we expect to find, in ample detail, the official accounts of the superintendents of the respective expeditions. Letters have, however, been received by the Astronomer Royal and Mr. Huggins from Major Tennant and Lieut. Herschel respectively, containing a hasty record of their observations. The following is an extract from Major Tennant's letter: "I have to report a continuous spectrum from the corona, and one of bright lines from the prominence I examined. I am, I believe, safe in saying that three of the lines in the spectrum of the protuberance correspond to C, D, and *b*. I saw a line in the green near F, but I had lost so much time in finding the protuberance (owing to the finder having changed its adjustment since last night) that I lost it in the sunlight before measuring it, and I believe I saw traces of a line in the blue near G, but to see them clearly involves a very large change in the focus of the telescope, which was out of the question then. I conclude that my result is that the atmosphere of the sun is mainly of non-luminous, or faintly luminous, gas at a short distance from the limb of the sun. It may have had faintly luminous lines, but I had to open the jaws a good deal to get what I could see at first, and consequently the lines would be diffused somewhat, still I think I should have seen them. The prominence I examined was a very high narrow one, almost to my eye like a bit of the sun seen through a chink, both in brightness and colour (I could see no tinge of colour), and somewhat zigzaggy like a flash of lightning. It must have been three minutes high, for it was on the preceding side of the sun near the vertex, and was a marked object, both in the last photo-plate just before the sun re-appeared, and to the eye. Captain Branfill saw the prominences coloured, as did two other gentlemen, but one in my observatory (like myself) only saw it white. I should, however, say that for long I never saw α Orionis markedly red, nor Antares, and I may not catch red soon, though I cannot conceive this being so. Captain Branfill reports the protuberances unpolarized, and the corona strongly polarized everywhere in a plane passing through the centre of the sun. I may note that the darkness was very slight, and the colour not half so gloomy as in the eclipse of 1857, which was partial at Delhi where I was then."

The following graphic account by Lieutenant Herschel is contained in a letter to Mr. William Huggins, F.R.S., one of the secretaries to the Royal Astronomical Society. Lieutenant Herschel is preparing a full report of his eclipse observations to be communicated to the Royal Society, but his letter to Mr. Huggins, written shortly after the eclipse, exhibits so clearly the difficulties which an observer has to contend with in the hurried minutes of totality, that it will be perused with intense interest on that account, as well as for the valuable spectrum observations described in it. Lieutenant Herschel's station was at Jamkandi, exactly on the central line of shadow, north-east of Belgaum. He remarks that "the week preceding the event had quite

prepared me for disappointment. There seems to be an annual cloudy and rainy season at Jamkandi, which lasts about a fortnight, and was said to be somewhat later and more marked than usual this year. The morning broke, however, as usual, clear, but the driving monsoon clouds soon showed the kind of sky we were to expect. About a quarter of a minute before totality a thick cloud obscured the sun. I had placed the slit (of the spectroscope) so as to cross the crescent at about the vanishing point of the limb, and was watching the narrow solar spectrum grow rapidly narrower. You may conceive the state of nervous tension at this moment. Whatever the corona was competent to show must in a few seconds be revealed, unless, indeed, it should so happen that a prominence should be situated at that precise spot, in which case the double spectrum would be presented. But the solar spectrum faded out while it had still appreciable width, and I knew a cloud was the cause. I went to the finder, removed the dark glass, and waited—in that fever of philosophical impatience which recognises the futility of irritation, even while it chafes under the knowledge of fleeting seconds—how long I cannot say, perhaps half a minute. I can well recall the kind of frenzied temptation to turn screws and look somewhere else, checked by the calm ticking of the clock telling of a firm hold of the right place, cloud or no cloud. Soon the cloud hurried over, following the moon's direction, and therefore revealing first the upper limb, with its radiating, and as I fancied, scintillating corona, and then the lower limb. Instantly I marked a prominence near the needle-point in the finder. A rapid turn of the tangent-screw covered it with the point of the needle. Those few seconds of unveiling were practically all that I saw of the eclipse as a spectator. With the exception of a hurried glance into the finder at a later period to watch for another break, I was the whole time engaged at the spectroscope. I have not the remotest idea, from actual experience, of the external phenomena which were present to the thousands of upturned faces whose voices I heard outside. I might easily have lifted the curtain and looked out while the clouds were obstructing. That I did not do so is only to be explained by the absence of mind, as regarded all else, produced by the concentration of attention on the problem before me. To return. The instant the prominence was under the needle-point I returned to the spectroscope. A single glance solved the problem in great measure. Three vivid lines—red, orange, blue! No others, no trace of a continuous spectrum. I think I was a little excited about this time, for I shouted quite unnecessarily to my recorder, red, green, yellow, quite conscious of the fact that I meant orange and blue. I lost no time in applying myself to measurement. And here I hesitate; I have no idea how those five minutes passed so quickly. Clouds were evidently passing continually, for the lines were only visible occasionally. The red must have been less vivid than the orange, for after a short attempt to measure it, I passed on to secure the orange, and succeeding to my satisfaction, tried for the blue line. Here I was less successful. The glimpses of light were rarer and feebler, the line itself growing shorter and farther from the cross. I did, however, place the cross very near the true position, and got a reading just as the re-illumination of the

field of view informed me that the sun had re-appeared on the opposite limb. I consider there can be no question that the orange line was identical with D (sodium) so far, at least, as the instrument is competent to establish an identity. I also consider that the identity of the blue line with F (hydrogen) is not established; on the contrary, I believe that the former is less refracted than F, but not much. With respect to the red line, I hesitate much in assigning an approximate place. It might have been near C (hydrogen). I doubt it being so far as B, but there would be its limits. The corona may have projected a spectrum of some kind, but I saw none. I therefore conclude that it was a faint solar spectrum, a conclusion in accordance with other characteristics of the phenomenon, but especially with the (flickering ?) radiating appearance, and with the satisfactory determination by Lieutenant W. M. Campbell, R.E., of the conditions of polarization obtained in the corona. At present, it is sufficient to state that these observations leave no doubt that the light of the corona is polarized in planes passing through the sun's centre."

When the spectrum observations of Major Tennant, Lieut. Herschel, Dr. Janssen, and the other observers who have undertaken these experiments, are printed in detail, our knowledge of the chemistry of the solar photosphere will be much enhanced by a discussion of the results as a whole. What one observer has overlooked, another most probably has recorded, and we believe that a very complete series of spectrum observations of the protuberances and the corona will be found included in the combined records. What results we may expect may be gathered even from the telegrams of the above-mentioned observers. From the spectrum observations of Major Tennant and Lieut. Herschel we may safely assume that the protuberances are principally produced by the combustion of hydrogen gas and the vapours of the metal sodium, but all speculation as to the exact origin of these phenomena must be reserved till more details of the observations are before us.

Letters have also been received from Aden, both from the Austrian and German expeditions. It appears that the former, MM. Oppolzer, Rziha, and Weiss, observed three large protuberances. The most remarkable of them was of the form of a finger, its colour being of a brilliant carmine, and its length about the eighth part of the sun's radius. It remained visible not only during the whole of the eclipse, but also till one minute after the end of totality, when it was obscured by clouds. The corona was very similar to that seen in Spain in 1860, but it could not be observed so well on account of the clouds cutting off the rays. With regard to the observations of the spectrum, these astronomers noticed that at the instant of commencement of totality Fraunhofer's dark lines suddenly disappeared, but the spectrum remained always visible as faintly continuous. Towards the end of the totality, when a mass of transparent clouds passed over the sun, obscuring the corona, but leaving the protuberances still visible, the most refrangible part of the spectrum disappeared completely in the spectroscope, nothing remaining but a series of red bands separated by considerable spaces. The German party at Aden devoted all their energies in obtaining a series of photographic pictures of the

eclipse during the totality. They succeeded in getting six representations of the phenomena on three plates. One of the protuberances registered on the photo-plates was of a most peculiar form, which was evidently the same as that seen by the Austrian observers, similar in shape to a finger. A comparison of this photographed prominence with that corresponding to it in the photographs taken at more easterly stations will most probably show whether any modification in its form had taken place in the interval between the observations at Aden and on the eastern coast of India. The photographs taken at Guntoor, under Major Tennant's direction, do not appear to have been very successful, owing to the plates having been under-exposed. The prominences are, however, distinguishable—at all events, sufficiently so for the purposes of comparison. The large protuberance alluded to above was also doubtless seen by Major Tennant's party, being that mentioned by him as "a marked object." It has also been described in the accounts of Capt. Rennoldson, of the steamship Rangoon, who observed the eclipse in longitude 59° 15′ E., and latitude 15° 42′ N., on the Bombay and Aden route. This officer remarked that "he saw two prominences on the right limb of the sun of a yellow-flame colour immediately opposite the two red ones, the whole forming a square, with the moon in the centre standing out like a mass of rock." Capt. Rennoldson made four sketches of the eclipse, in which the positions of the protuberances are given. Other accounts, interesting in themselves, but evidently from the pens of unpractised observers, have appeared in the newspapers. These isolated observations, however, do not afford much material available for scientific comparison, but they have shown that the public has been almost as eager as the scientific observer to see those curious phenomena which are only visible a few times during one's life.

There is no doubt that the observers were troubled severely by the unfavourable state of the weather. We have previously mentioned that on the extreme western coast of India rain fell heavily during the time of totality, and that at the stations where astronomers were located the clouds cleared away, more or less, at the critical moment. At Aden, for example, the sky was moderately clear at the time, but within a few miles of the observing station nothing whatever was seen of the total phase, owing to the density of the clouds.

At this moment (October 1, 1868) very little is known in England of the success or non-success of some of the expeditions. No information has yet been received either from Mr. Pogson or from the French party under M. Stéphan. We have seen from the letters of Major Tennant and Lieut. Herschel that valuable observations have been made by them; from Aden, also, tolerably detailed reports have been received; but all we know of the others has been gathered from concise telegrams, or from newspaper paragraphs. Some months must necessarily elapse before any carefully drawn-up detailed accounts of the observations can be published. We hope, however, in another article, to be able to give a brief *résumé* of the Indian observations, both of the English and foreign astronomers, and also to compare them with the general results of the observations of the three preceding total eclipses of the sun so carefully observed in

Northern Italy in 1842, in Norway, Sweden, and Eastern Prussia in 1851, and in Northern and Eastern Spain in 1860. In the meantime the details of each expedition, even if only moderately successful, will afford most interesting and valuable subjects for discussion during the ensuing session of the European scientific societies. Of late years the physical constitution of the sun has formed a favourite subject of inquiry amongst astronomers, either by the consideration of the laws governing the frequency of the solar spots, by the observation of those minute interlacing particles known as Nasmyth's willow leaves, or by the spectrum analysis of the solar light, and a great advance in our knowledge of solar physics has been obtained by these important investigations. But this knowledge has also been greatly improved by the observations made at successive total eclipses of the sun. Let us take the rose-coloured protuberances as an example. In 1842 it was not definitely known whether they belonged to the sun or moon; the observations of 1851 showed that they most probably belonged to the sun; in 1860 the photographs of M. De La Rue and Padre Secchi satisfactorily demonstrated that they were portions of the solar photosphere; while, in the great eclipse of 1868, the spectrum observations have exhibited them as actual self-luminous, gaseous bodies apparently floating in irregular huge masses exterior to the solar envelope.

EDWIN DUNKIN.

P.S.—Since the above was written, we learn from a later communication from Major Tennant that he has been enlarging his photographs, and that he is better satisfied with them than he expected. Although there is very little of the corona depicted on the photoplates, yet the cloudy structure of the prominences is very marked. One of these in the form of a horn, to which Major Tennant's attention was principally directed during the totality, and which is probably the same protuberance as that described by Dr. Weiss, of the Austrian expedition, as being in shape like a finger, is represented on the plates Nos. 1 and 3 as a ribbon of light coiled spirally round a semi-transparent centre. This immense protuberance which was 3′ 20″ high at Guntoor, looked as though a portion of the luminous vapour had been driven up by a whirlwind to an enormous height. Major Tennant conjectures from the curious spiral texture of this prominence, that the vapours which form the metallic lines in the spectrum exist ordinarily near the sun's surface, and that some of the lighter vapours, such as those of sodium and magnesium, might have been forced up by an outburst of hydrogen sufficiently powerful to form this great protuberance. If this suggestion be correct in this one instance, it is probably only exceptional, as the general contour of such of the prominences cannot be accounted for by a similar explanation. Major Tennant remarks that he has obtained six enlarged positive pictures, of about two-and-a-half inches in diameter, from each negative. The remarkable spiral structure of the great horn is shown in every one of them. We may state here that a similar, but closer, spiral structure can be observed in the large boomerang prominence registered on Mr. De La Rue's photographs of the eclipse of 1860.

E. D.

II.—FREE PUBLIC LIBRARIES OF GREAT BRITAIN.

In 1845, Mr. William Ewart, M.P., succeeded in passing through the House of Commons a bill to encourage the establishment of Museums. The Act was confined to towns having a population exceeding 10,000, and the municipal authorities were not authorized by it to expend money in the purchase of specimens of natural history, and those other objects of art and science which are generally found in such institutions. A rate of one halfpenny in the pound might be levied, but it was only applicable to providing buildings, and paying the expenses of conservation, not of accumulation. Very few towns availed themselves of the liberty, and the Act, if not a dead letter, had only a very partial measure of success. In 1848, Mr. Edward Edwards, then of the British Museum, published a paper in the "Journal of the Statistical Society," giving a "Statistical View of the Principal Libraries in Europe, and the United States of North America."

Great Britain did not show to great advantage, and the paper brought home very forcibly the miserable paucity of public libraries in our own country as compared with the Continental States. Amongst other curious particulars, Mr. Edwards gave a table shewing the number of volumes to every hundred of the population of the cities containing libraries. In Great Britain, it was 43; in France, 125; in the Papal States, 266; in Brunswick, 2353.

In Switzerland there were 13 public libraries, containing more than 10,000 volumes; in the Austrian States, 41; in France, 107; in Great Britain and Ireland, including Malta, there were 29; and even of this small number several would have to be struck out on a careful revision, as not being entitled to be considered as public libraries. The town of Sienna, in Tuscany, with a population a little under 19,000, had a public library of 50,000 volumes, whilst Manchester, with 360,000 inhabitants, had an *endowed* library of 19,000 volumes. The Manchester Library was not one-half the size of that of Sienna, although the population of Manchester was twenty times larger than that of the Italian town. Further, the Manchester Library was the only one in the British empire freely open to the public without let or hindrance. The paper attracted the attention of Mr. Ewart, and eventually resulted in that gentleman moving for a Select Committee on the subject of Public Libraries.

This Committee thoroughly investigated the entire subject, and a mass of valuable evidence was thus brought before the public. It is out of our present province to enter into details respecting the labours of the Committee; those who desire further information will find an epitome of the more important facts in the *Companion to the Almanack* for 1850. The Report of the Committee recommended that Parliament should empower the municipal authorities to levy a small rate for the maintenance of public libraries, and concludes thus: p. xiv. "Your Committee feel convinced that the people of a country like our own —abounding in capital, in energy, and in an honest desire not only to initiate, but to imitate whatsoever is good and useful—will not linger

long behind the people of other countries in the acquisition of such valuable institutions as freely-accessible public libraries. Our present inferior position is unworthy of the power, the liberality, and the literature of the country. Your Committee believe that, on such a subject as this, inquiry alone will stimulate improvement. Even while they are concluding their Report, they observe with pleasure that, in addition to the library formed at Warrington, the creation of a large public library has been planned and accomplished in the public-spirited borough of Salford.

"It will be a source of sincere satisfaction to your Committee if the result of their labours shall be still further to call out, to foster, and to encourage among their countrymen that love for literature and reverence for knowledge of which, during the course of their inquiries, they have had the gratification to trace the spontaneous development."

The Salford Library and Museum owed its existence chiefly to the exertions of the late Joseph Brotherton, M.P. Some doubts appear to have been entertained as to the strict legality of appropriating a portion of the rate levied under the Museums Act of 1845; these were dispelled, and the recommendation of the Committee followed up by Mr. Ewart's introduction into the House of Commons of a Bill, which afterwards became law as the Public Libraries and Museums Act of 1850, 13 & 14 Victoria, cap. 65.

The operation of this Act was restricted to towns having more than 10,000 inhabitants. A poll of the burgesses was to be taken, and if two-thirds of them voted for it the town council were empowered to levy a rate of one halfpenny in the pound; the money thus raised could be applied to providing buildings and fittings, and to the payment of salaries, *but not to the purchase of books*. In 1853 the Act was extended to Ireland and Scotland, in 1854 it was further amended as to Scotland, and in 1855 the law was modified very considerably. The amended Act of 1855 empowers all towns or districts having more than 5000 inhabitants to adopt the Act, authorizes the purchase of books, newspapers, specimens of art and science, &c., and increases the amount of the rate to one penny in the pound. In 1866 and 1867 further amendments became law. At the present moment the amended Acts empower any town, parish, district, or union of parishes or districts, to adopt the Free Libraries Act, provided that a majority of the ratepayers, at a public meeting, are in favour of doing so. The meeting may be called by the local authorities, or on a requisition signed by the ratepayers, and the expenses of the meeting, whether the Act be adopted or rejected, are to be paid from the borough fund. The management may consist either entirely of members of the town council, or partly of persons unconnected with the local government; the rate must not exceed one penny in the pound. The same regulations apply to the establishment of museums and galleries of art. Money may be borrowed for these purposes on the security of the rates. The property of the library and museum must be vested in the local authorities, whether town council or commissioners of improvement. Finally, admissions to the institutions established by these Acts must be entirely free. The table, page 25,

Name of Town.	No. of Boro' Population, 1861	Number of Books.			Number of Issues.			By what Means supported and managed.
		Reference.	Lending.	Total.	Reference.	Lending.	Total.	
Airdrie	14,435	None.	2,200	2,200	..	14,402	14,402	£70 per ann. from the Rates—Mixed Committee.
Birkenhead, Cheshire	61,420	1,500	11,301	12,801	10,285	67,121	77,406	£100 „ „ „ „ „
Birmingham, Warwickshire	296,076	18,225	25,133	44,358	11,468	218,872	230,340	Mixed Committee.
Blackburn, Lancashire	63,126	5,656	6,488	12,144	3,977	24,799	28,776	Town Council.
Bolton, „	70,395	14,790	7,726	22,516	31,445	32,016	63,461	£800 per annum—Town Council.
Bristol, Gloucestershire	154,093	8,000	..	..	..	..	..	
Cambridge	26,361	3,589	8,793	12,382	4,237	37,307	41,544	£300 „ Mixed Committee.
Cardiff	32,954	..	3,330	3,330	..	16,050	16,050	£450 (about) per ann. „ „
Hertford, Hertfordshire	6,769	100	1,200	12,100	..	2,000	2,000	£100 per annum „ „
Kidderminster, Worcestershire	15,399	950	None.	950	6,800 ?	..	6,800	£70 „ Town Council.
Leamington, Warwick	17,958	None.	5,000	5,000	None.	26,287	26,287	£366 „ Mixed Committee.
Lichfield, Staffordshire	6,893	2,300	None.	2,300	3,000	None.	3,000	£100 „ Town Council.
Liverpool, Lancashire	443,938	45,668	38,449	84,167	578,774	420,282	999,056	£10,000 „ Mixed Committee.
Manchester, Lancashire	338,722	39,264	44,705	83,969	252,912	420,520	673,432	£5,000 „ Town Council.
Norfolk	74,891	?	?	3,642	?	?	13,480	£600 „ Mixed Committee.
Nottingham	74,693	None.	About 10,000	..	..	..	..	
Oxford	27,560	4,200	3,860	8,060	4,707	6,290	10,997	Local Board.
Salford, Lancashire	102,449	20,808	10,062	30,870	62,555	60,023	122,578	Mixed Committee.
Sheffield	185,172	?	?	26,751	13,184	149,389	162,573	£1,800 „ „ „
Winchester, Hants.	14,776	1,600	None.	1,600	2,000	..	2,000	£108 „ „ „
Warrington	26,938	3,000	8,000	11,000	..	..	..	£250 „ Town Council.

At Burslem, Ipswich, Dundalk, Ennis, Walsall, and perhaps a dozen other places, the Act is believed to be in operation, and at Dundee, Bradford, and several other places, the Act has been adopted, although so recently that the libraries are not yet opened to the public.

gives information as complete as it has been possible to obtain, of public libraries established under Mr. Ewart's Act, with the population of each place, the date of the establishment of the library, the number of volumes, the number of volumes issued, and other information. The figures do not all refer to the same year.

We have seen that, sixteen years ago, the Chetham Library at Manchester was the only library freely open to the public without any distinction of class or creed. Before entering upon the new free libraries let us glance at this old one, which claims to be the first free library in Europe.

Humphrey Chetham, the founder, was a worthy merchant of Manchester, who died during the Civil War, and left, by his will, provision for endowing a bluecoat school and a public library. The school originally supported forty boys; now the number is doubled. The library has been less fortunate, and has only a scanty income.

The Chetham Library is essentially a library of folios; in modern books it is very deficient; its strength lies entirely in its collection of older books. There are readers in all libraries who seek only amusement, and who would degrade the National Library itself to the level of a circulating library; such readers would find little to tempt them on the shelves of the Chetham Library. Ponderous folios of the Schoolmen, solid quartos of Reformers and Romanists, have little charm for readers of this sort. It must not be supposed, however, that nothing but theology is admitted within these ancient walls. The number of volumes may be classified thus:—

Theology	3,261
History	4,075
Jurisprudence	681
Sciences and Arts	3,403
Literature	2,856
	14,276

These are the figures given in Mr. Edwards' "Manchester Worthies," 1855; but their accuracy is doubtful, and we have not been able to obtain any later information. The number of volumes must now be nearly 30,000.

The library has 137 volumes of MSS., a small but highly interesting collection, including a copy of Mathew of Westminster's "Flores Historiarum;" Higden's "Policronicon," a "Relatione del Viaggio fatto dal Signor Girolamo Lando, Ambasciatore dell Ser'ma Republica di Venetia in Inghilterra," inedited, and almost unknown. Several curious commonplace books of early English poetry are worthy the attention of any student of Elizabethan literature, and ought long ago to have been printed. Of historical MSS. relating to the locality there are many. A Wycliffite version of the New Testament; "The Pricke of Conscience," by Robert Rolle; the original MS. of "Torrent of Portyngale," reprinted by Mr. Halliwell; a "Booke of Kervynge;" "Bevis of Hampton;" and "Ipomadon," may also be mentioned. Of books which, for various reasons, are of especial value there are many; some, alas, incomplete. Thus, Gould's "Birds;" Curtis's "Flora Londinensis;" Claude's "Liber Veritatis;" the

Aldine Æschylus; Cressy's "Church History;" a set of Hearne's publications in fifty-nine volumes; "Museum Florentinum;" "Galerie Royale de Dresde;" Roscoe's "Monandrian Plants," may be cited as examples. The art books just mentioned—and there are many more of equal beauty and value—would, we should think, be of service in educating the taste of those engaged in the arts of design. The average number of readers is about fifteen per day.

It is evident that the Chetham Library is not fulfilling the end which its benevolent founder had in view, and it must be a matter for consideration among the feoffees whether some method might not be devised for making it useful to the great community around it.

One plan has been proposed which would certainly have that effect—its amalgamation with the free public library. The two collections would admirably supplement each other. There are objections to this course, but we do not think they are strong enough to counterbalance the good that would arise to both institutions from such a course, nor are the difficulties which lie in the way at all insurmountable if the good citizens of Manchester only determine that they shall be removed. Let us now turn from the old to the new, from the fine old endowed library to the public free library owing its origin to the popular will, and governed by the representatives of the community. A greater contrast could scarcely be imagined. The old library has a monastic air about it; the building is the oldest, and almost the only, relic left of old Manchester; it was once the Baron's Hall of the De la Warres, and afterwards the residence of the collegiate church clergy. Memories of Dr. Dee still haunt the ancient pile; its long and gloomy corridors admit only a dim religious light, and in the old-fashioned reading-room the sun shines through a stained-glass window richly dight. As we have seen, the antique volumes on these shelves are rarely disturbed; they lie mute and neglected. It is a melancholy sight, and we cannot think that its benevolent founder, a man of practical common sense, would feel satisfied if he were to revisit his ancient home.

The Manchester Free Library owes its origin chiefly to the public spirit of the late Sir John Potter, who commenced a public subscription, which ultimately amounted to 12,823*l.* 10*s.* With this sum a building, formerly used as a Socialist meeting hall, was purchased, adapted to the uses of a library, stocked with books, and then presented to the corporation in trust for the inhabitants of Manchester. The Public Libraries Act was at once adopted—the votes being 4002 in its favour, and 40 for its rejection. The library was formally opened by a public meeting held September 2, 1852, at which Lord Shaftesbury, Lord (then Sir E. B.) Lytton, Charles Dickens, W. M. Thackeray, Charles Knight, and many more, whose names are household words, were present to bid the enterprise "God speed." It was fitting that men whose names are associated with the glories of our contemporary literature should aid at the consecration of this temple of knowledge, where the wisdom of the past and the present was to be made free to all, high or low, without money and without price.

The library opened with 16,013 volumes in the reference department, and 5305 volumes in the lending department. Since then four

additional lending libraries and news-rooms have been opened to the public in different parts of the city. The chief library is situated at Campfield, not far from one of the busiest, dirtiest, and narrowest of the Manchester thoroughfares. The building is of Italian design; the principal room is devoted to the reference library, and is a magnificent reading-room 83 feet long, 51 feet wide, and 27 feet high. There are, however, complaints that the site is not sufficiently central, and that the building does not exactly meet the requirements of a large library.*

The branch lending libraries are in buildings built specially for their reception, and are all four handsome and commodious edifices.

The number of volumes now in the different libraries are shown in the following classified statement:—

Class.	Reference Library.	Lending Libraries.					
		Campfield.	Hulme.	Ancoats.	Rochdale Road.	Chorlton and Ardwick.	Total.
I. II. Theology and Philosophy .	2,362	498	283	311	237	215	3,906
III. History, Biography, &c. .	11,060	4,462	3,030	2,279	2,291	2,090	25,212
IV. Politics and Commerce. .	6,474	858	204	73	201	159	7,969
V. Sciences and Arts . . .	3,736	1,021	879	599	894	465	7,594
VI. Literature	10,015	6,687	4,900	4,256	4,342	3,358	33,558
Specifications of Patents . . .	3,746	..	..	..	..	..	3,746
Books and Pamphlets not yet classed	1,871	..	..	..	..	..	1,871
Books for the Blind	..	20	23	14	12	44	113
Total	39,264	13,546	9,319	7,532	7,977	6,331	83,969

The next table, page 7, shows at a glance the extent to which the inhabitants of the Cotton Metropolis have availed themselves of the privileges thus afforded them.

It will be seen that there has been a steady increase, with but little fluctuation. In the first year the reference library issued 61,080 volumes, and the issues in the succeeding years have never fallen below that standard. In the fifteen years of its existence, 1,700,400 volumes had been issued from that department. The issues from all the libraries during that period amounted to 5,007,304 volumes. It is an improvement on the past that people read at all; but in attempting to realize the results accruing from these institutions, the class of books read, and the social position of the readers, must form an important element for consideration. If the books are good and healthy, the benefits likely to result from this wide dissemination of their teachings can hardly be over-estimated. We will, therefore, give a brief account of the character of the collection. The reference library is, for its size, one of the most valuable and well-selected in the kingdom. In many divisions of literature it is defective, but in several it is singularly rich. It has no ancient

* Twelfth Report.

MSS., and no modern ones of any great importance; it possesses a small collection of early printed books, including some

"Won from Kloss's hoards,"

Of this description may be mentioned Caxton's translation of Viragone's "Golden Legend," first edition 1483, a portion of the first translation of the Bible into Dutch, 1477; Von Hutten's "Nemo," 1516; Luciani "Dialogi," Venetiis, 1522,

"The Aldine anchor on its opening page;"

"Manipulus Curatorum a Guidone de Monte Rochen," 1484; "Biblia en Lengua Española," Ferrara, 1553; "Boetius," Argentinæ, 1501.

Annual Issues from each Library for each Year since the opening.

—	Reference Library.	Lending Libraries.					Annual Total.	Daily Average of the Aggregate Issue.
		Campfield.	Hulme.	Ancoats.	Rochdale Road.	Chorlton.		
1st. 1852-53	61,080	77,232	Opened Nov. 23, 1857.	Opened Dec. 7, 1857.	Opened June 4, 1860.	Opened October 8, 1886.	138,312	461
2nd. 1853-54	64,578	77,767					142,345	488
3rd. 1854-55	66,261	81,321					147,582	495
4th. 1855-56	70,770	85,783					156,553	523
5th. 1856-57	101,991	96,117					198,108	666
6th. 1857-58	122,772	98,251	50,129	38,058			309,210	1,131
7th. 1858-59	115,206	75,449	67,231	47,628			305,514	1,036
8th. 1859-60	123,184	74,423	64,598	47 358	14,366		323,829	1,250
9th. 1860-61	142,433	78,464	77,395	51,532	59,194		409,018	1,371
10th. 1861-62	160,496	93,097	91,763	55,269	70,061		470,686	1,579
11th. 1862-63	124,065	104,359	95,967	59,181	75,472		459,044	1,536
12th. 1863-64	108,237	92,762	88,989	56,091	68,794		414,873	1,401
13th. 1864-65	112,026	91,432	95,687	54,535	76,556		430,236	1,433
14th. 1865-66	133,056	80,209	94,183	45,508	75,606		428,562	1,485
15th. 1866-67	194,349	88,675	155,555	41,936	88,602	105,315	673,432	2,302

Of rarities and literary curiosities we may enumerate a long series of the little volumes known as the "Elzevir Republics;" Purchas's "Pilgrims;" "Works of Taylor, the Water Poet," 1630; "A Collection of the Names of the Merchants in and about London," 1677, 16mo*; Perrin's "Luther's Forerunners," 1624; Mary Pope's "Treatise on Magistracy," 1647; Esquemeling's "Bucaniers of America," 1684; Marat's "Philosophical Essay on Man," 1773; the Paris edition of Jefferson's "Notes on Virginia," 1782, &c.

Among remarkable illustrated works we may name Botta's "Nineveh;" Picart's "Impostures Innocents;" Kingsborough's "Mexican Antiquities;" Arrabida's "Flora Fluminensis;" Blume's "Flora Javæ;" Du Sommerard "Sur les Arts au Moyen Age;" "The Antiquities of the Russian Empire," published at Moscow by order of the Imperial Government;" Curtis's "Flora Londinensis." But perhaps the greatest bibliographical treasure the library possesses is

* This is considered to be the earliest London directory, and has been reprinted by Mr. Hotten. Two copies only are known to be in existence, the other being in the British Museum. In the Catalogue of the Corporation of London, Sixth Supplement, 1866, p. 1, a book is entered which may, perhaps, dispute its claim:—"The Names of all such Gentlemen of Accompte as were residing within ye Citie of London, Liberties and Suburbes thereof, 28 Novembris, 1595, anno 38 Elizabethæ Reginæ," 8vo. n. d.

its remarkable collection of pamphlets, illustrative of almost every phase of our political and social history. The long series of tracts, extending to between three and four thousand volumes, includes the largest portions of several important individual collections, particularly those of Lord Bexley, Francis Place, William Davies of Oxford, the Magens, and William Fullerton of Carstairs. These, although chiefly relating to British history and literature, include also some curious pieces relating to foreign history, for instance, a small collection of *Mazarinades*.

These books, it will be seen, belong to almost every class of literature, and may serve to show that the place is really intended as a library for study and research.

Another fact worth mentioning is, that fiction is almost excluded from the reference library, not more than 200 volumes of the entire collection being of that class, and that small number made up chiefly of works which, like the "Waverley Novels" and the fictions of Fielding and Smollett, have obtained a permanent place among our English classics. In the lending libraries, on the other hand, fiction is freely admitted, and is the most popular. They also contain a selection of the best modern English works on history and biography, elementary expositions of the various sciences, &c.

Before a person can become a borrower from a lending library, he must obtain the guarantee of one of the ratepayers, who undertakes to make good any damage which may be done to books whilst in his care. This obligation lasts for five years; at the end of that time the borrower must obtain a renewal of the guarantee.

To each of the lending libraries is attached a reading room, plentifully supplied with newspapers, magazines, and reviews, and where persons who are not borrowers may have books to read in the room.

The following tabular statement of the issues from each department will give some rough idea of the quality of the literature issued from the Library during the year ending September, 1867 :—

—	Reference Library.	Lending Libraries.				
		Campfield.	Hulme.	Ancoats.	Rochdale Road.	Chorlton.
Theology	2,875	1,525	1,387	346	1,673	1,327
Philosophy	953	177	239			
History	21,423	12,725	13,582	4,967	11,484	12,824
Politics	8,284	616	389	74	618	1,046
Science	14,043	3,806	3,825	1,084	4,262	3,499
Literature	60,227	69,796	136,133	35,465	70,549	86,577
Books for the Blind	..	42	64	..	16	42
Specifications of Patents	86,544	..	..	..	..	..
	194,349	88,717	155,619	41,936	88,602	105,315

The thirteenth report contains some information as to the occupations of the readers, and their relative number of visits to the reference library. Liberal Professions, 6196; Students and School-

boys, 3935; Civil and Military Service, 271; Trades, 62,013; out of employment, or employment not stated, 9368; Architects and "Advertisers," Civil Engineers and Carters, Clergymen and Cigar Makers, Physicians and Porters, Barristers and Bill-posters, Reporters and "Reelers," alike are found amongst the visitors.

The promoters of the Manchester Library intended to have had a museum in connection with it, but (from whatever cause we know not) this has never been done. A small museum in Queen's Park, in one of the suburbs, is supported out of the library rate. The museum is very small, and, notwithstanding the exertions of the curator, its collections are as yet poor and unimportant, with one exception, and that is a curious collection of casts from human heads, illustrative of the dogmas of phrenology. This was commenced by Spurzheim, and received many additions from a well-known disciple of his school, before it came into the care of the Corporation.

The Catalogue of the Reference Library was published in 1864, and contained entries of 26,534 distinct works. The compiler, Dr. Crestadoro, the present chief librarian, has arranged it in two alphabets, the first containing a full description of each book arranged under the author's name, the second is an index of subjects, formed on the principle of making a concordance of the titles, and allowing the author himself to define the scope and meaning of his book.

We have already mentioned the establishment of the museum and library at Salford, under the Act of 1845; the institution is now managed under the provisions of the amended Act of 1855, and includes a reference and lending library, museum, and gallery of art, situated in Peel Park, one of the prettiest promenades in the neighbourhood, and a favourite resort for recreation of all classes. The museum is rapidly becoming an important collection, and contains some curious specimens of early English ceramic art, many objects of natural history, and also articles of especial interest to the anthropologist. Another attractive feature is a periodical exhibition of works of art, which are lent for that purpose by their owners.

In the twelve months ending October, 1867, the museum was visited by 566,520 persons. The number of volumes in the several classes is shewn in the following table:—

—	Reference Library.	Patent.	Lending Library.	Total.
Theology	832	..	496	1,328
Political and Social Economy	1,052	..	194	1,246
History, Voyages and Travels	4,804	..	1,567	6,371
Biography	1,037	..	686	1,723
Science and Art	2,683	..	837	3,520
Patented Inventions	..	2,055	..	2,055
General Literature	3,926	..	1,503	5,429
Works of Fiction	317	..	4,779	5,096
	14,651	2,055	10,062	26,768
122 Vols. of Pamphlets, 3200 Blue Books, 780 Duplicates	..	..	..	4,102
Total	..	..	..	30,870

The reference library is a well-selected collection, and includes many costly and valuable books, amongst which we may name a set of Gould's magnificent ornithological works, Curtis's "Flora Londinensis," Roscoe's "Monandrian Plants," Ormerod's "Cheshire," Bloomfield's "Norfolk," &c. &c. The chief strength of the library is in modern books; in works of a more remote date the deficiencies are very great. It possesses only one early printed book, a copy of the "Cronycles of all the Kynges Names that have reigned in England," issued from the press of Wynkyn de Worde in 1520. A classified Catalogue was printed in 1851; but the additions that have been made to the collection since that date have rendered it obsolete, and its place is supplied by an MS. catalogue. It is to be hoped that a new *printed* catalogue will soon be issued. A better method of extending the usefulness of the library could not be devised.

The issues in the several classes during the year ending October, 1867, were as follows:—

—	Theology.	Political.	History.	Science.	General Literature.	Novels.	Specifications of Patents.	Total.
Reference Library .	1,618	1,061	8,855	18,678	22,829	9,514	11,642	74,197
Lending Library .	838	..	4,533	1,759	5,437	47,456	..	60,023
								134,220

Some particulars are given of the occupations of 535 persons who were admitted to borrow books from the lending library in the year 1866-7: 117 were females, 192 youths under sixteen, 138 workmen, 55 clerks, 33 other occupations. Of these 535 borrowers 248 were under twenty years of age, 88 under thirty, 53 under forty, 21 under fifty, and 8 who had passed the half century. This statement refers only to the lending library; the majority of those who consult the reference library will probably be of a maturer age.

The Liverpool Library is, in some respects, the most successful of these institutions. A succession of magnificent donations has signalized its progress, the first being the important natural history museum, bequeathed by the late Earl of Derby. A special Act was obtained in 1852, giving additional powers to the Corporation; 7389*l.* was raised by public subscription, and 4000 volumes of books were presented; the library was opened in October, 1852, in temporary buildings, and then contained 12,000 volumes. In 1853, William Brown, Esq., offered 6000*l.* towards defraying the expenses of a new building for the library and museum, if the Corporation would provide a suitable site; the town council at once voted a sum of 10,000*l.*; the temporary buildings then in use were valued at 4000*l.*, making 20,000*l.* available for the new building. The estimated cost was 32,000*l.*, a

deficiency of 12,000*l.*, which Mr. Brown proposed should be made good by himself and the council in equal proportions, a proposition to which the Corporation gladly acceded. Two months after he wrote to the Mayor, desiring that he might undertake the entire expense of erecting a "Free Public Library and Museum worthy of the town, where the inhabitants, be their position in life what it may, can resort for intellectual improvement." The new building was opened on the 18th of October, 1860, the late venerable Lord Brougham, whose name is dear to all friends of human progress, taking part in the inaugural proceedings.

Mr. Brown was created a baronet at the same time as Messrs. Frank Crossley, of Halifax, and David Baxter, of Dundee, a graceful recognition of their princely munificence. Another merchant, Jonathan Shipley, Esq., of Virginia, gave 1000*l.* for the purchase of books, and last year Joseph Mayer, Esq., F.S.A., presented his museum, perhaps the most liberal donation ever given to a public institution. The collection, which has taken a lifetime to gather together, is a singularly valuable one, including specimens of ceramic ware of various ages, Egyptian papyri, mummies, Oriental MSS., the celebrated Codex Mayerianus "discovered" by Dr. Simonides, and objects of art and vertu of every age and every nation. In such a vast assemblage of interesting objects it is difficult to particularise which are especially noteworthy, but the collection of Anglo-Saxon gems (which includes those of Roefe and Faussett) may be named as the finest and completest series known. The gallery of arts has not yet attained large proportions; the number of paintings is very small, but they include one or two of great excellence. Ansdell's "Hunted Slave" and the well-known "Death of Nelson" for instance.

The libraries consist of a reference and two lending departments, the latter are situated at the north and south end of the town. The number of volumes in the reference library, and the issues of books from it in 1866–7, are shewn in the accompanying table:

—	No. of Vols.	No. of Issues.
Theology, Morals, and Metaphysics	3,695	17,503
Natural Philosophy, Astronomy, &c.	1,160	16,647
Natural History, Botany, Mineralogy, &c.	2,414	6,330
Sciences and the Arts, Architecture, &c.	4,707	36,521
History and Biography	6,764	39,001
Topography and Antiquities	2,030	9,189
Geography, Voyages, and Travels	2,960	32,248
Miscellaneous Literature	8,174	167,075
Jurisprudence, Law, and Politics	3,993	4,828
Commerce and Social Statistics	412	3,967
Education, Logic, Language, &c.	654	11,026
Poetry and Dramatic Literature	2,018	22,427
Works of Imagination	4,919	199,873
Classical Literature	301	3,663
Heraldry, Encyclopædias, and Works of Reference	1,467	8,476
	45,668	578,774

an average issue of about 2041 volumes per day.

The reference library is well supplied with the best *modern* works

in all classes of literature, and includes a pretty large proportion of foreign books; it will be seen, also, that it contains many works of fiction, works which should only be admitted into a library for study sparingly and with circumspection. The library has many books on art, natural history, and philology. Among some of its more noticeable books we may name the first folio of "Shakespeare," Audubon's "Birds of America," Roscoe's "Monandrian Plants," the works on natural history of Gould, Catlin, Bonaparte, Cuvier, &c., Louis Philippe's copy of "La Description de l'Egypte," published by the government of the great Napoleon; Kingsborough's "Mexican Antiquities," Hall's "Royal Gallery," Walton's "Polyglot," &c. Worthy of especial mention is a collection extending to several folio volumes, made by Thomas Binns, a member of the Society of Friends, entitled "Illustrations of the County Palatine of Lancaster," and consisting of a large number of drawings, engravings, portraits, and documents of all sorts illustrative of the history of the county. The future historian of the English cotton kingdom will have reason to bless the taste and industry of the worthy Quaker.

A classified catalogue was issued in 1860, and two supplements have since appeared, but a new catalogue is now being compiled by Mr. S. Huggins, whilst Mr. H. Ecroyd Smith (and it would be difficult to name a gentleman more qualified for the task) is engaged upon a catalogue of the museum. The number of volumes in the lending libraries is not given in the last report, but there must be very near 20,000 volumes in each. During the year 420,282 volumes were lent to 8233 readers. A feature peculiar to this library, and one which might very advantageously be copied by all the others, is the circulation of printed music. "The care which is taken of the books, and the amount of music known to be copied from them, is a proof they are highly appreciated." In a paper read at the meeting of the Social Science Association in 1858, speaking of the lending departments of the Liverpool Library, Mr. J. A. Picton, F.S.A., says:

"Individual instances are continually occurring of the great boon conferred on the industrial classes by the establishment of these libraries. During the severe weather in the winter months, when large numbers are thrown out of employment, the privilege is largely used. A house painter, whilst out of work in such circumstances, read through eleven volumes of Thiers' "History of the Consulate and Empire," and was thereby led into a regular course of study. A stone mason out of employment stated to the librarian that he felt it a great boon to be able to take a book home to his own fireside. Formerly he could not bear being about the house when out of work, and must go, to pass the time, to the public house, and have his glass of ale and pipe; now he never thought of stirring out whilst he had a good book to read. Another recently stated that his library rate of a few pence had saved him many a pound since the opening of the libraries."

The three places we have named have tried the experiment on a somewhat large scale and with very gratifying results. Let us now examine the working of one of the smaller institutions.

The ratepayers of Cardiff adopted the Act in 1863, and from the

fifth annual report we learn that the total number of volumes in the library is 3330 volumes, which, with the exception of a few "works of reference" are circulated on similar conditions to those in use at other places. During the year ending November, 1867, the number of volumes issued was as follows:—

Theology	329
Natural Philosophy	220
Natural History	301
Science and Art	340
History and Biography	1,192
Topography, &c.	61
Geography, Voyages, and Travels	826
Miscellaneous Literature	3,558
Jurisprudence, Law, and Politics	58
Commerce—Statistics	62
Education	179
Poetry and the Drama	714
Light Literature	8,210
	16,050

A large percentage of these issues, it will be seen, consists of what are somewhat indefinitely styled light literature, meaning, we presume, novels and romances. Yet the taste of the good people of Cardiff is by no means confined to that class. The fourth report gives some examples of books which are most in demand. Tennyson's "Enoch Arden," was issued 60 times during the year, and found the same number of readers as the "Dog Fiend," and twice as many as "Adam Bede." "Tom Jones" found 30 readers, and Strickland's "Queens of England" 26. Fawcett's "Political Economy" had 23 readers, although Mill's work on the same subject had only 14. The "History of Cardiff" had 40, "Oliver Twist" 52, and "Gil Blas" 33 readers.

The news and reading rooms are supplied with 87 newspapers, magazines, and periodicals, and are highly appreciated by the public. There is a small museum in connection with the library, and also schools of science and art.

Bristol, Norwich, and Leicester, possess town libraries of considerable antiquity, and all three, owing to the carelessness, or worse, of the town council, had become alienated from their public uses; but two at least have been reclaimed, and are now managed under the Public Libraries Act. At Norwich the library has not been so successful as we could wish, and as it is the only case of partial failure that has come to our knowledge, it may be well to say that it is attributable to the fact that "a building costing nearly £10,000 was erected, and the repayment of this and the interest absorbs nearly the whole of the library rate." Perhaps, in the long run, it may not be bad policy, but for the present it has seriously impaired the usefulness of the library.

At Bristol, in 1613, Mr. Robert Redwood "gave his lodge" for a public library "for the furtherance of learning." Tobie Matthew, Archbishop of York, bequeathed some valuable books for the benefit of the "merchants and shopkeepers." John Heylin, Esq., in 1766, left it the books and MSS. of the well-known Dr. Heylin. In 1773, a subscription library was originated, and the complaisant corporation

granted the use of the books and library house to the proprietors of it. These *gentlemen* proceeded to resolve that no keeper of an inn or coffee-house should be a member of their body, or derive any benefit from the books which the pious prelate had left for the use of the merchants and shopkeepers.

The library was restored to its original purpose in 1856, when it contained about 2000 volumes. By the untiring energy of Mr. George Pryce, the librarian, this number has been increased to about 8000 volumes, besides a special collection of Bristol books. Many of the volumes in this library are of great rarity and value. The details we have now placed before the reader will illustrate the working of free libraries under very varied conditions. It is useless to multiply instances; with the one exception already alluded to, the history of our town libraries is one of yearly increasing usefulness.

There are one or two points connected with their welfare to which it may be well to devote a brief space. We have seen, by the experience of the Bristol and Leicester libraries, that the old corporations were not always faithful guardians of such trusts, but they cannot be justly charged with the blind stupidity of the Church authorities who have suffered Church libraries, the benevolent legacies of the pious dead, to perish from neglect, or, in defiance of their sacred trust, have disposed of them to the highest bidder.

There is only one effectual safeguard against such abuses, and that is thorough publicity. This the town libraries have in a great degree; they belong to the inhabitants and are always open for their inspection, and those in whom the property is vested are elected by the community; the more important libraries publish annual reports of their working, and the smaller ones publish similar statements in the local newspapers. In one way only could there be greater check upon mismanagement, and that is by a system of government inspection. This has been advocated by Mr. Edwards, and, although we are no admirer of paternal governments, we must confess that we think great good would result from a regular inspection of these institutions by persons capable of testing their efficiency, usefulness, and progress, and able to give advice where it might be needed.

If objections were raised to a plan of inspection, there could scarcely be any to the annual publication of the more important statistics as a parliamentary paper. This would tend to destroy their present isolation, and would doubtless lead to many improvements, by bringing about an interchange of ideas. In America the Smithsonian Institution has been of great service, by acting as a bond of union among the various literary and educational institutions of that country. In England a society has lately been formed, having for its object the opening of the British Museum in the evenings, and the establishment of free libraries. If this society has the courage to perform the work, there is a wide field of usefulness open for it, not only by aiding in the formation of town libraries, but by acting as a medium of intercommunication between those already in existence, by watching the progress of the new-born institutions, and giving such counsel as might appear necessary for the guidance of the inexperienced.

The society might summon a congress of librarians, and of persons

interested in the study of bibliography, for the purpose of discussing the various questions, some of them very vexed, connected with Library Economy.

In some towns the library is in connection with a museum or gallery of art, or schools of art and science; in some places with all three. In some localities a reference library only has been established; in others the books are all circulated. Again, the term "reference library" is very differently understood. In Liverpool it contains 43,261 volumes; in Cardiff only 165. In the smaller libraries the general plan seems to be to circulate all the books with the exception of a small number of encyclopædias and works of reference. In the large towns the reference library is often the best and largest in the place, and, as a matter of course, attracts to it the intellect of the locality, since there they find the best appliances for prosecuting their researches in the world of books. The lending libraries appear to be of a more decidedly popular character, and, whilst the larger ones can boast of a very fair collection of classic English literature, they all give a decided prominence to fiction and the lighter literature of the day. But it may very safely be said that the class of books borrowed from the free libraries would advantageously compare, as to quality, with those issued from the establishments of Mr. Mudie and his compeers. In the lending libraries, then, works of fiction and literary miscellanies are chiefly in demand; next in point of popularity is historical literature, science and politics following, and theological literature standing at the foot of the list. Statistics always require to be received with caution. From the latter circumstance it might be inferred either that our religious literature was very small, or that there was very little demand for it. And both inferences would be equally erroneous. In the larger libraries of reference the greatest demand is for works of general literature; very little inferior is that for historical literature; politics and science are in about equal request, and theology is again the lowest in the scale.

There is another class of books which in some of the libraries are in great demand—the specifications of patented inventions. The Hon. the Commissioners of Patents have, as is well known, had printed all the extant specifications of inventions for which patents have been granted, and, with a liberality strikingly in contrast with the conduct of some other branches of the Civil Service, they have presented their publications to every English town possessing a public library, and also to some subscription libraries on the understanding that the public are to have free access to them. These patents, ranging in date from 1617 to the present year, when bound form about 4000 small folio volumes. They are of the highest interest, as showing the history and gradual progress of those arts and manufactures in which our country has so long taken an honourable lead, and, at the same time, they give hints to the future inventor, and save the expenditure of time, money, and intellect upon projects that have already been patented. The ingenious man, struck with some (to him) fresh idea, consults these records to ascertain if he has been anticipated in his discovery, and thus saves himself from an amount of wasted labour and anxiety painful to think upon. At some of the libraries these

specifications are bound up chronologically, without any regard to the proximity to each of those treating of the same subject. This plan throws great difficulties in the way of those who consult them. Suppose a man has discovered an improvement in the construction of sewing machines. The first patent for sewing by machinery was taken out in 1755. Since then there have been about 900 patents on this subject, and the unfortunate man would have to wade through some hundreds of volumes before he could tell whether his invention had already been the subject of a patent or not. At Manchester, Bolton, and other libraries, they are systematically classified, and it must be obvious to all that this will greatly facilitate reference.

At Liverpool the specifications are comparatively little used; at Manchester, Salford, &c., an immense number of references are made to them in the course of a year, 86,544 at the former, and 11,642 at the latter, are the figures given in the last report.

We have already furnished some data relative to the social position of those who make use of town libraries; and the facts show that whilst all classes use the libraries, the working classes, as might be expected, form the majority of the visitors. Sometimes people talk of these public libraries as if they were intended for the benefit of the working classes alone. It is a transparent fallacy. They are for all classes alike, and something must be wrong if every rank does not share in the advantages they offer. That the richer classes, with more or less extensive private libraries, will not need to consult them so continually as those whose book shelves are barer is true, but still if the library be a good one it must attract students of every grade. On this point it may be well to quote the words of one of the most eminent of English book-collectors, Mr. James Crossley, F.S.A., words spoken at the opening of the Manchester Free Library.

"He knew what would have been his sentiments had such a noble collection of books been placed within his reach when, filled with hunger for knowledge to a ravenous degree, he first sought to improve his own mind by reading, and, with comparatively small means for that purpose, he became a member of this commercial community. Why, he should have hailed such a collection of books as that he saw around him with a transport no words could convey. Even now, with a library of his own larger even than that he now saw upon those shelves, he must look back to that period of hunger and inanition, feeling strongly how painful it was, with the sharpest appetite for knowledge, to have inadequate means for its cultivation, and the feelings he had endured he had no doubt must have been felt by thousands and tens of thousands of the ingenuous youth of this vast population."

In Canada, where the town library system is in full operation, the libraries are in receipt of state aid, nor can we see that any evil would result from the adoption of the same plan here. When a system of national education comes to be devised, perhaps this subject may come in for a share of consideration.

But leaving this aside, there is no doubt that it is the duty of the government to encourage learning and literature. How far this has been done in other directions we need not now inquire, but as far as

these town libraries are concerned they owe nothing to the state. Taking the Manchester Library as an example, we believe we are correct in saying that the Government of the State of New York has been a greater benefactor to it than the British Government.

In 1853 Mr. Tuffnel's Committee recommended that the publications of the Houses of Parliament should be presented to all public libraries which applied for them. But the authorities have consistently refused to carry out this recommendation.

It is so also with the valuable series of public records published under the authority of the Master of the Rolls. These books are printed at the national expense, and are intended to promote the study and the knowledge of our national history. It would have been a wise and liberal policy to have presented this important series to every town library in the land. The policy hitherto pursued has been to refuse all applications for them from free public libraries, although (in one case at least) they have been presented to a private subscription library.

Again, at the British Museum, it was estimated that there were 50,000 volumes of duplicates in 1849; at the present moment there must be a considerably larger number. Of course there are many books of which, even in small libraries, it is well to have more than one copy; but after making all deductions, the fact remains that at the National Library there are now, absolutely useless, a number of volumes sufficient to stock a good town library. Why not distribute these among provincial libraries, or else make them the nucleus of a free library for the City of London? The apathy of the Metropolis on the matter of a public library is disgraceful to the community, and why is the Guildhall Library not made more accessible to the public? But we must conclude our brief and imperfect attempt at chronicling the progress of this movement.

Ignorance is a prolific mother of vice and crime, and whatever tends to destroy ignorance aims a blow also at the existence of crime. Let us rejoice then at the success of these new-born institutions, whence the blessed light of knowledge is diffused into the darkness. "The true university of these days is a collection of books," says Carlyle, and in a great library what noble teachers we may choose! The best and wisest of all ages are there to give aid and direction, counsel and consolation. The men who have left undying names, who live yet in the loving memory of the "human world at large," are teachers in these universities, and surely a people who make bosom friends of the wise and good will become better men than they were before, by reason of that companionship.

Our English libraries have not hitherto done all the good that lay within their power, because they have hidden their light under a bushel; they have guarded the sacred fountain of literature with jealous care, and have forbidden the poor student and the horny-handed workman to drink at its holy stream. Such is not the spirit of these new institutions. They open wide their portals to all who wish to drink of the water of knowledge. They know no distinction of creed or party, they are catholic and cosmopolitan. Here Jew and Christian stand lovingly side by side.

The spoken word as an instrument of education is now becoming of minor importance, and the printed voice is taking its place, chief engine in the dissemination of thought. And not only do books give knowledge, but wisdom also, which is of infinitely greater worth, to those who study them aright:

"They give
New views of life, and teach us how to live."

"An intelligent class can scarcely ever be, as a class, vicious," says Everett. Those who have tasted the sweets of intellectual pleasures will hardly care to descend to lower and grosser forms of enjoyment, and a people familiar with those lessons of wisdom and truth taught by the mighty dead, can hardly fail to be a nation wise, and just, and true.

WILLIAM E. A. AXON.

NOTE.—It may perhaps be of service to give references to additional sources of information. Mr. Edwards' "Memoirs of Libraries," 1859, 2 vols., a valuable and interesting work, is the best we have on the general subject of Libraries. On Free Libraries, there are papers in the various volumes of the "Social Science Transactions," by Mr. D. Chadwick, Mr. E. C. Osborne, and Mr. J. A. Picton, F.S.A. Articles have also appeared in the Scottish Review" (July, 1859), the "Social Reformer" (October, 1866), "Meliora" (October, 1867, by the present writer), and in the "Aberdeen Free Press," by A[lexander] S[impson], December, 1867. The following pamphlets may also be named:—"Free Libraries—their Working and Advantages" [by Peter Begg], Dundee, 1866, 8vo; "A Free Public Library for Darlington—its Necessity, and how to get it," By W. K. Stock, Darlington, 1866, 8vo; but the best and fullest statistical account we know is that entitled "Free Libraries; their Nature and Operations," Four Letters by James Hanson, Bradford, 1867; although in writing this paper we have not drawn any of our information from his well-written *brochure*.

III.—PETROLEUM, PARAFFIN, AND NITRO-GLYCERINE.

THE direful calamity on the 20th of August last, on the Chester and Holyhead Railway, involving as it did a destruction of human life quite unparalleled in amount and in horror during our forty years' experience of railways, naturally drew the attention of the public very strongly to all the antecedent and collateral circumstances. If it had been an overturn, a precipitation down an embankment, or the breaking down of a bridge or a viaduct, followed by much mutilation and many deaths, it would have had a parallel in character (though not in extent) on former occasions. If the white-hot fuel from the engine fire, scattered about by a break-down, had kindled the shattered carriages and burned or scorched many of the passengers to death, it would have resembled the terrible Versailles railway accident in 1842. But the hideous disaster at Abergele was worse than any former—not in the number of victims, but in the fact that upwards of thirty persons had a river of liquid fire flowing under them, the flame of which (after fœtid smoke had produced suffocation) consumed the poor creatures so completely that nothing but shapeless lumps of charcoal and ashes remained. It was said that explosion did it; and it was also said in some paragraphs of the newspapers, and in some of the evidence before the Coroner's jury, that *petroleum* was the liquid which exploded; whereas other accounts named *paraffin*. But paraffin is a

solid, whereof beautiful white candles are made; and the difference between it and *paraffin oil* (presently to be described) was not duly held in view. It was remembered that cases had occurred on the Thames and elsewhere, in which petroleum had flowed as a devouring flame on the surface of water, arising from the contact of fire with the liquid when in casks on quays or in warehouses. It also came to the recollection of many persons, excited by the Abergele disaster, that another liquid, bearing the name of *nitro-glycerine*, had on several occasions exploded with frightful violence, working much greater mischief than an equal quantity of gunpowder. All these circumstances raised a doubting embarrassment—not yet by any means removed—concerning the relative origin and qualities of the three substances above-named. Are they three liquids, are they two, or are they merely modifications of one? will they only inflame and burn, or will they also explode; and what protective laws are in force concerning them? Before touching on these questions, let us briefly review the circumstances of the great railway holocaust.

The *mechanical* features of the calamity at Abergele, in regard to the shunting and collision of trains, need not be dwelt upon here at any length; we have only to show how it happened that barrels of highly inflammable oil came in contact with the burning fuel of a locomotive. On the 20th of August a goods train left Chester, on the down line of the Chester and Holyhead Railway. At Saltney the load was augmented by 50 barrels of mineral oil, each containing 34 gallons, or 1700 gallons in all, consigned to Dublin. The train, when it arrived at Abergele, rather less than half way between Chester and Holyhead, comprised engine, tender, break-van, and 44 waggons or trucks, extending about 235 yards in all. Some little distance west of Abergele a rising gradient begins, extending for a mile and a half to Llanddulas station, and as steep in one part as 1 in 100. The goods train arrived safely at the top of the incline at Llanddulas; and there a shunting became necessary. The Irish limited express mail, a very rapid and well-appointed train, runs through from Chester to Holyhead without any intermediate stoppage; it overtakes the midday goods train on the way; and the latter has to be shunted into a siding to keep the down-line clear. How far it was prudent for the company to run a goods train so short a time before the most rapid of the passenger trains, was one of the many serious questions suggested by the calamity. The siding at Llanddulas was of sufficient length to contain the whole of the goods train; but as there were already a few trucks at that spot, and as a process of substituting some empty trucks for full trucks had to be performed, the train was dislocated, and some of the rearmost trucks left temporarily on the main down line. These were the trucks which wrought the mischief, as some of them contained the casks of oil. Left standing on a steep incline, they began to move; no one was at hand to apply break-power; they ran down the incline eastward back again towards Abergele, attaining a speed of thirty miles an hour. The express mail, going west, was ascending the incline at that identical time and place; the average speed of the train was forty miles an hour, but during the ascent it was about

thirty. The two trains met with a united or component momentum of sixty miles an hour. The mail train engine dashed into the trucks containing the oil; the casks were riven to pieces; the oil flowed over the rails and the ballasting, and over the burning fuel of the engine. The foremost passenger carriages, not actually broken to pieces by the concussion, were nevertheless enveloped almost instantly in fierce flames and suffocating fumes. There is no reason to believe that any real explosion took place; a river of inflammable oil was flowing down the line, under the carriages; white-hot fuel from the engine fire ignited this oil; and the intense heat of the flames thereby produced did its dread work. The thirty-three hapless beings who lost their lives were in all probability suffocated by the loathsome fumes, not burned to death, but choked to death, and the dead bodies burned to mere scraps of ashes and cinder. So far as it is any consolation, there is justification for believing that the actual suffering was very brief in duration.

Many of the collateral issues involved in the sad calamity, interesting and important as they are in a public sense, lie beyond the immediate purpose of the present article. If there had been no incline at that spot the rearmost trucks would not have run down the line eastward; if there had been no curve just thereabouts, the driver of the mail train might possibly have seen the obstacle soon enough to avert the danger; if the break had not been released by the "kicking-off," the few trucks would not have run down the incline; if a man had watched those trucks during the re-adjustment of the train, he might have averted this disarrangement of the break; if the casks of oil had been in the foremost half of the train, or if there had been no oil at all, the collision might (possibly) not have involved any loss of life; if a longer interval had been allowed between the trains, the runaway trucks might have been stopped at Abergele or at Rhyl before the mail train arrived. We might, at pleasure, assume any one of these contingencies as the *cause* of the accident; but the whole of them were, in effect, concurrent causes. The conflagration itself, however, is the only matter here under notice. Inflammable oil was the *immediate* cause; and we shall presently see whether this oil was petroleum or paraffin, and whether such oils are or are not explosive.

Petroleum.—Petroleum and paraffin oil belong to the chemical substances known as *hydro-carbons;* they are very nearly allied to each other in their relation to flame and heat. It would, perhaps, be convenient to confine the name *petroleum* to the oily liquid which is met with in a natural state underground, and the name *paraffin oil* to that which is distilled from various kinds of shale and coal. So long as the terms *rock oil, stone oil, shale oil, earth oil, mineral oil,* &c., are employed, it is not easy to tell which is meant. Again, *naphtha* is a name sometimes given to these inflammable liquids—especially to the lighter coloured and more limpid varieties of petroleum; but as *wood naphtha* possesses different qualities from *mineral naphtha,* the name is very indefinite. Confining the word petroleum ("stone oil" or "rock oil") strictly to the oily liquid which forms and accumulates underground, it may be mentioned that such oil is occasionally met with in abandoned coal-mines in this country. At Rangoon, in India beyond the Ganges,

a somewhat similar oil is found, and is pumped up from wells to the extent of some half million hogsheads annually. At Zante, in the island of Trinidad, on the shores of the Caspian Sea, in certain parts of Italy, and in many other places, oily liquids are found, either in pools on the surface or in wells at some depth beneath; in some instances identical with petroleum, in others nearly allied to it. The Anglo-Saxon "rock oil," the Latin "petroleum," and the Persian "naphtha," all mean the same thing in their etymology. The oil (which for convenience we will call petroleum, disregarding local names applied to it) is not a definite chemical compound, but a mixture of many substances, chiefly hydro-carbons, more or fewer according to circumstances. It varies from a thick, pitchy, clammy, semi-solid down to the most limpid liquid; and according to these variations in character, so is it more or less useful as a lamp oil and a lubricant, and as a source whence other kinds of oil may be obtained. Oil from fishes and oil from seeds we all easily understand; but how oil can be formed underground is still a mystery. Two of the principal theories of explanation are (1), that petroleum is a product of natural or spontaneous distillation from bituminous coal, leaving anthracite as the other product; and (2), that it resulted from the bituminous fermentation of marine plants at a period antedating the formation of coal, and containing a larger proportion of hydrogen than coal contains. Both these theories assign, it will be seen, a vegetable origin to the oil. Some of the deposits are in underground pools or reservoirs; some are in rocky fissures; in some places the ground is completely saturated with oil; while in others a thick oily scum floats on the surface of water in ponds and lakes; but none of these divergencies are inconsistent with the theory of formation from coal or from coal plants. We shall presently, however, have to refer to Professor Hitchcock's opinion on this subject.

Of all regions in the world, America has yielded the most wonderful results in the production of petroleum. At a place called Titusville, in Pennsylvania, not far from the junction of that State and New York State with Lake Erie, oil had for many years been seen floating on the surface of a well. The oil was sucked up by means of pieces of flannel, and applied to medicinal purposes. About 1849, Mr. Keir, of Pittsburg, devised a mode of refining the oil, so as to fit it for burning in lamps; but it was not until 1854 that a Rock-Oil Company was formed, to utilize all the oil that came up to the surface. No great results were achieved until, in 1858, it was determined to bore Artesian wells, and even to dig regular wells to a great depth, in order to reach underground deposits. When, in 1859, it became rumoured throughout the States that the Rock-Oil Company was raising 400 to 1000 gallons of oil per day, a rush set in towards the oil regions, analogous in many of its features to that of the gold-diggers into California. Capital was obtained; land was bought or rented; wells were sunk; pumps were erected; and such an oily stream flowed as had never flowed before. Shafts were dug, varying from a few feet to a thousand feet in depth; and up these shafts rose a quantity of oil in some cases almost incredible. The greatest yield recorded is 2500 barrels (of 40 gallons each) per day

for several days together. No search for gold was ever more uncertain than this search for oil. Sometimes a rich well suddenly ceases, remains dry for a time, and then recommences. Sometimes the stoppage is permanent, as if the well had really dried up. In many cases there has been a gradual decline followed by a gradual renewal, like an ebb and flow. Most of the wells require pumps, because the oil does not rise in them to the level of the ground; but there have been known instances in which the oil bursts over the surface like a torrent, taxing the means of the proprietors to catch it fast enough. Ingenuity was perpetually exercised, to determine symptoms whereby the existence or non-existence of oil underneath can be predicted; but this predictive power is found to be very slight. Two anecdotes may be cited, among those which are in print, to illustrate the uncertainty of this matter. A well was bored to a considerable depth without finding oil; the boring-bit was withdrawn to replace it by a rimer or rimmer, to widen the hole; this minute widening happened to strike a vein of oil, which the narrower boring-bit had just missed. In another instance, a well was bored successfully, and a large flow of oil obtained; the owner, not being ready with tanks and barrels to collect it, temporarily stopped the hole with a plug; but the "tide turned," figuratively and perhaps actually, for when the plug was removed, the oil was found to have disappeared.

One of the most remarkable scenes of commercial activity ever witnessed, was that which the oil region presented when the system came fully into work. *Oil Creek*, *Oil City*, *Oil Springs*, *Petrolia*, were names which became known throughout the United States; and Canada also had rich wells of her own, dug in a forest where much semi-solid tar-like substance on the surface of the ground had suggested the probable existence of oil underneath. A correspondent of the *Times*, writing in 1865, said:—"I think I am speaking within the mark when I say that within fifty miles of Oil City there are more so-called towns and villages than there were farms four years ago. Corry, four years ago, was a poor farm where the thinly-scratched soil of cold clay land yielded so little that the whole place, buildings and all, might easily have been purchased at eight or ten dollars an acre. It was a mere halting-place for sportsmen *en route* to shoot deer in the now manufacturing regions of Petrolia. I was at Corry the other night. It is a fine rough city of about 10,000 inhabitants. The Atlantic and Great Western Railway, which has opened it up, has its great depôt there, and has made it the central exchange of petroleum. Yet all this has been done within four years, and the site of a city which now transacts business to the amount of 3,000,000*l.* annually, and where the land sells almost as dear as in Cheapside, could all have been bought four years ago for less than 5000*l.*" There are several other places almost equally as large, such as Oil City, Pithole City, Titusville, Rouseville, Franklin, and Plummer, boasting of their banks and newspapers. Pithole grew up from a forest to something like a city in four months; for this was one of the places where the oil, when shafts were once dug, flowed fairly up to the surface in abundance, saving all expense for pumping machinery. Of Oil City itself this writer said:—"The whole population is ragged,

oily, and dirty; but the whole population is, without an exception, more or less thriving. You land from the railway cars in a perfect sea of mud—mud of such depth, tenacity, and slipperiness, as I believe is not to be found in any other part of the world. If your readers can imagine how the dirtiest part of Limehouse would look if mixed up with log shanties, and the tall wooden buildings of improvised American cities, all before and behind the houses being interspersed with machinery and pumping oil-wells, the whole partly burned, and all more or less damaged by floods—they will have some idea of the surroundings of Oil City. No one here buys clothes while any he has got will hold together; and when he buys he simply attires himself at the stores—a coat at one place, boots at another, and so on, throwing out into the road the garments which he supersedes by better."

The oil wells of America seldom require any very elaborate plant or buildings. At Franklin and Titusville, for instance, in Pennsylvania, there are large wooden cisterns sunk in the ground, to receive the oil which rises through tubes let down into the borings. The cisterns are covered, to prevent evaporation; their leakage is prevented by surrounding them with a trench full of water—the greater specific gravity of the water furnishing an obstacle to the escape of the oil through it. The oil is drawn from the cisterns into barrels for transport. The Atlantic and Great Western Railway has a branch constructed specially to the oil region; this, in conjunction with the New York and Erie, the Ohio and Mississippi lines, affords a commercial outlet for the oil to the Atlantic ports, to the Canadian lake ports, and to the Mississippi and New Orleans. To facilitate the railway transit, pipes are laid down from some of the wells to the railway stations, and steam-pumps force the oil from the cisterns at the former to the barrels at the latter—thus obviating the necessity of conveying the filled barrels by cart or other road transport. When the operations were at their height, the railway was occupied with oil-trains night and day, as close together as they could be despatched; and even then the warehouses and stores were choked with filled casks.

The petroleum, as pumped up from the American wells, is crude and impure; it might serve for liquid fuel, and for various rough purposes, but it needs distilling or refining to fit it for use in other ways. Patent processes are adopted in England for this purpose. In one, the oil, purchased at a low price in a crude state, is separated by distillation into two parts—the one, called *cazeline*, a pure transparent liquid suitable as an oil for table lamps; the other available as a substitute for turpentine in various manufacturing operations. Some scientific men believe (as already noticed) that all rock-oil is a natural distillation from coal or coal-shale; whereas others contend that some of the deposits are found in places where coal measures do not exist. Be this as it may, the crude rock-oil itself differs very much in different wells, from thin and light-coloured to thick and dark-coloured; the latter yields the greatest proportion of lubricating oil, the former the most limpid lamp-oil.

Considering the very few years during which this pumping up of oil from wells has been going on, the quantity obtained is wonderfully

large. The whole produce of the United States was estimated in 1861, at 24,000,000 gallons; 40,000,000 in 1862; 70,000,000 in 1863; 87,000,000 in 1864; and 91,000,000 in 1865. The quantities for 1866 and 1867 are not before us; but it has recently been announced that, after supplying home demand, there were 70,000,000 gallons of petroleum exported from the United States in the first eight months of 1868. The immediate effect of the discovery was to substitute petroleum for fish-oil and seed-oil throughout the United States, as a fuel for lamps; and the next was the use of petroleum instead of coal in the retorts of gas-works. As the supply increased, the demand increased; and this augmentation of demand encouraged the adventurers to sink additional wells. A sum far exceeding 100,000,000 dollars (20,000,000*l.*) has been invested in the trade; and some of the more successful adventurers have realized princely fortunes. The price has varied excessively, but appears to have settled down to about a shilling a gallon at the well's mouth. At one time, when the flowing wells supplied the oil more rapidly than the casks and warehouses could receive it, the price fell to a few cents per gallon. The oil was first brought to Liverpool in large quantities in 1861, since which year a regular trade has been maintained.

The availability of petroleum as a fuel for steam-engine furnaces is still a problem. In some experiments made at Woolwich, in 1866, at the instance of the British Government, the suitableness of the oil for marine engines was urged on the following grounds—that the petroleum (1) raises steam more rapidly than coal; (2) requires a smaller furnace and boiler; (3) maintains a more continuous heat; (4) affords means of varying the intensity of the fire more quickly; (5) is extinguished instantly by turning off the oil and keeping on the steam; (6) produces no smoke, ash, or dust; (7) dispenses with some of the staff of coalers and stokers; (8) economizes space for coal-bunkers; (9) reduces the dead-weight carried by the ship; (10) occasions no loss of heat by opening furnace doors; (11) keeps the engine-room clean and comparatively cool; and (12) admits of the furnace fires being lighted more quickly. English engineers generally, however, do not indorse this highly favourable decision. The United States Government, in like manner, caused experiments to be made with a similar view, under the superintendence of Mr. Isherwood, chief of the bureau of steam engineering. The report, issued in January, 1868, was not favourable, inasmuch that it declared "that convenience, comfort, health, and safety, are against the use of petroleum in steam vessels; and that the only advantage thus far shown is a not very important reduction in bulk and weight of fuel carried."

Accidents from the careless use of petroleum have been so numerous in America that they can scarcely be counted. In some cases they were called explosions; but most of them were fierce burnings, accompanied by the emission of suffocating fumes. The careless mode of packing and transport has had much to do with these disasters. The petroleum wharf at Pittsburg, half a mile in length, is often nearly covered with casks of oil; and if they are tolerably well made, all may go off well. But there is (or was) another plan adopted, subject to much peril; flat boats bring down the oil from Oil

Creek; they are like large boxes made of plank, divided into cells, which form tanks; they are filled at the oil wells, closed, and sent down the river. Such boats almost invite the presence of an accidental spark. Dr. Attfield has stated to the Pharmaceutical Society that petroleum, when in the crude state, generally gives off, at ordinary temperatures, quite enough vapour to form an explosive mixture with the air, if it be in a confined space, such as a lamp, bottle, or cask. Hence it arises that most of the accidents—perhaps all the actual explosions—have arisen from the oil in a crude state. When, by refining, the crude oil has been resolved into (1) a *benzine* or spirit that may be used as a substitute for turpentine; (2) a light oil for lamps; and (3) a heavy oil for lubrication—it is not so explosive. To somewhat lessen the dangers, some of the Pennsylvanian oil-shippers use impermeable casks, made in the following way. The cask, when made, is placed over a tube through which hot air is injected into it for twenty-four hours; thereby heating the wood and opening the pores. The cask is then placed in a frame which braces the head, and allows it to rotate on either axis. Hot glue is poured into it, and distributed over the interior. A tube is then thrust through the bung-hole, and a pressure of 20 lbs. of air per square inch applied; this forces the glue into every crack, crevice, and pore, and renders the cask impervious to oil.

In our own country, the Thames has literally been on fire with burning petroleum; and so has the river Lea—owing to the bursting or spilling of casks on quays and wharfs. Ships have also been in awful peril, while crossing the Atlantic with petroleum from America. Other countries have been imperilled in a like way. Very recently (September 14, 1868), a lighter, with petroleum on board, took fire alongside the quay at Antwerp, and blew up; the burning barrels floated up the river by flood tide, and came in contact with a steamer and two lighters, setting them on fire. The truth seems to be, that petroleum emits, even at ordinary temperatures, gases so subtle that they find their way into various parts of a ship; and then a mere lighted match may work the mischief. The danger is increased by the fact that the sailors, after a time, lose their sensibility to the odour, and do not know that the gas is invading their cabins and berths. Frequent ventilation of petroleum ships, by artificial currents of air, is imperatively needed. The repeated disasters in England through the conveyance (rather than the use) of petroleum has led to the adoption of various precautions, presently to be noticed. The petroleum merchants of London agreed in 1864 that good "merchantable" refined petroleum should not have a lower point of ignition than 100° F.; they also settled what should be the standing specific gravity of the oil, in the two forms of crude and refined. This may appear a perilously low temperature for the oil to ignite; but with crude petroleum it is lower still. Chemists have found that much of the crude oil, as it issues from the wells, evolves an inflammable gas even at ordinary temperatures; and that this gas, when mixed with atmospheric air, forms an explosive compound which instantly takes fire when brought in contact with flame. Purer samples will not do this under 80°; while the refined oil will bear 100° or more.

Paraffin Oil.—The second of these useful but embarrassing liquids is with us a home product. The uncertain use of the two terms is partly due to the fact that solid paraffin is often obtained from crude petroleum, because the latter is now so cheap and abundant; and when both lamp-oil and candle-paraffin are obtained from that source, it is certainly open to the sellers and users to select either the one or the other designation. So far as the crude forms of the two substances are concerned, petroleum has been formed by nature's own chemistry beneath the surface of the ground; whereas paraffin oil is artificially obtained from coal and shale. This, as we have before observed, is perhaps the most useful distinction to maintain between them. It should be remarked, however, that many American chemists make a broader distinction than this between petroleum and paraffin oil; tracing the latter to coal as a source, but suggesting a partially animal origin for the former. They refer to the odour and to some of the properties of petroleum as lending support to the opinion that it is to some extent a fish-oil, or else a substance analogous to adipocere. Professor Hitchcock points out that it cannot be merely the result of a natural distillation of coal, seeing that its chemical composition is different from the paraffins or cannel coal oils, in containing neither aniline nor nitro-benzole. Moreover, he adds, petroleum occupied fissures in the Silurian and Devonian strata of America long before the trees of the coal period were growing in their native forests. A fact which may one day assist in the solution of this problem is, that salt brine is generally associated with the petroleum pumped up from the American oil wells. There is a theory by Bertholet (see "Bulletin de la Société Chimique de Paris," 1866) which traces the origin of petroleum to the action of condensed gases.

Whatever may be the relations of petroleum to paraffin oil, the difference between *paraffin* and *paraffin oil* ought to be kept well in view; seeing that many persons are unaware that the one is a solid and the other a liquid. Paraffin was first obtained by Reichenbach, in 1829, from tar. The particular kind of tar he employed was that which results from the dry distillation of beech-wood; but it has since been obtained from other kinds, and also from Rangoon tar, turf or peat, cannel coal, and shale. There are thus many varieties of paraffin, which differ in minor features; but they are substantially the same in their main chemical characteristics. Their melting point varies from about 108° to 140° F.; and paraffin first became commercially valuable when manufacturers discovered how to give different melting points to different varieties. The kind which requires the highest temperature to melt is the best fitted for making candles; whereas for certain other manufacturing purposes an easily-fusing variety is preferred. The best paraffin is a white semi-crystalline substance, without taste or odour, beautifully translucent, and somewhat resembling spermaceti or white wax. A paraffin candle made by Price's Candle Company will at once exemplify this very delicate substance. Paraffin has so little affinity for, and is so little acted upon by, other substances, that its name (*parum affinis:* slight affinity) was selected to denote this kind of solitary independence. It is, however, soluble in some of the essential oils and ethers.

Thus much for paraffin. As to *paraffin oil*, it is obtainable from the same substances by varying the processes; and the manufacturer can obtain either the one or the other, according to the kind of distilling apparatus employed, and the temperature maintained. Many patents have been taken out for obtaining one or both kinds from bituminous shale, from brown coal, from Boghead cannel-coal, from lignite, and from bituminous substances of various kinds. The process which has led to the most important commercial results is that which Mr. Young patented in 1850. Selecting Boghead cannel-coal as a suitable source, he erected works on the Boghead estate, near Bathgate, in Linlithgowshire. A brief description of Mr. Young's operations will—so far as the present article is concerned—suffice to give a general notion of the modes of obtaining paraffin and paraffin oil. Boghead coal is thrown into vertical retorts, heated from below on the outside, and closed at the top when full. Becoming red-hot, the coal distils or gives off a product which passes through a worm-pipe into a refrigerator, where it becomes condensed. This first product is crude paraffin, a thick blackish oil with a little water. A particular temperature in the retorts is necessary to produce it; seeing that at a higher heat the product assumes the form of gas and gas-tar, instead of oil. A ton of Boghead coal yields about 130 gallons of crude paraffin. Then come the processes of separation and refining, by distillation and other means; until at length the crude paraffin is resolved into three substances: 1. Oil for lamps; 2, oil for lubricating machinery; and 3, paraffin. The fat oil for lubricating is of greater specific gravity than the more volatile oil for lamps, while the oil which solidifies into paraffin is heavier still; these differences facilitate the separation of the three kinds in the processes of distillation and refining. In the language of commerce, there is not only the confusion between *crude* paraffin and the paraffin after it has undergone purifying processes; but there is also the confusion between three at least of these finished results, each of which ought to have its distinctive name, be it *kerosene*, *photogen*, or what not.

Mr. Young's manufacture became so valuable that it gave rise to several formidable lawsuits between parties whose interest it was to contend—the one that Boghead cannel is, the other that it is not, a true coal. On this alternative turned the question whether or not the patent had been infringed by other manufacturers. The evidence shewed that scientific chemists were without a good definition of shale as distinguished from coal; while another point in dispute was whether paraffin had ever been obtained from coal before the date of Young's patent. Many of the first chemists of the age were examined; but we may dismiss the matter here by simply stating that the validity and commercial value of Young's patent for producing paraffin were fully established. The patent having expired in 1864, a new limited liability company was established at Addiewell near West Calder. This establishment, and the paraffin manufacture as therein conducted, were fully described in *Engineering* for 1867.

There are now paraffin gas works in Scotland, which produce 3000 cubic feet of gas and 60 gallons of crude paraffin oil for every ton of Newbottle cannel-coal, instead of 11,000 cubic feet of gas without

any oil. There is no reason to doubt that the *kerosene* of New South Wales is as much a paraffin as any of those of Scotland. In 1865 a bed of shale was discovered in that colony, similar to Boghead coal and Torbane Hill mineral in Scotland, but richer in oil and more free from sulphur. When distilled at Sydney, some of the samples yielded 160 gallons of oil per ton. In the Hartley district the seam is 5½ feet thick. Efficient machinery having been obtained from England, the manufacture of street-gas and kerosine or paraffin oil was commenced, the state of the market determining whether the one or the other product should be regarded as the more important.

Many uses for paraffin oil are gradually becoming known. A solution of paraffin in benzole is employed as a preservative varnish for pictures and photographs. One of the numerous modes of preserving meat, now engaging public attention, is by the use of this liquid, or a preparation made from it. On the other hand, there are very deleterious effects being produced in the Scotch rivers by the manufacture: the fish being killed by it. This results from the leaking of the casks at the works; the remanet of paraffin in the condensing water; and another small percentage in the spent acid and alkaline liquors. It is found that crude paraffin has a worse effect upon the fish than crude petroleum; and that the same is the case when the two oils are purified.

That paraffin-oil burns with terrible fierceness, whether it explodes or not, is shewn by numerous disasters. So recently as September, 1868, two accidents have tended to prove that a thin layer of the oil, where fire or heat is anywhere near, is much to be dreaded. In a room near Newcastle, a two-gallon can or bottle of *diamond oil* (one of the many varieties of paraffin) was placed under a table around which many persons were sitting. It was accidentally upset; the room was warm; vapour arose; the heat of the fire kindled it, and terrible deaths ensued. In the other case, which occurred near Queenstown in Ireland, several workmen were engaged repairing a railway bridge at night. To assist them at their work, large rudely-formed paraffin-lamps were employed, filled from a cask which was rested on baulks of timber. Much oil was carelessly spilled during the filling; this saturated the grass; a spark fell on it, and in an instant the ground was in a flame. This caught the cask, which exploded, bringing mutilation and death in its train. These two instances are, in fact, merely samples of a large number. Moreover, there is reason to believe that petroleum is sometimes credited with the mischief wrought by paraffin oil; the former being the better-known designation of the two. For instance, a factory at Pesth, in Hungary, was burned on September 12th last, by the ignition of an enormous reservoir containing 6000 cwt. of "petroleum," spreading wild devastation around. The account was copied into the English newspapers from the Vienna *Wanderer;* but there is much probability that the proper translation would have been "paraffin," not "petroleum factory." There is also some doubt whether *naphtha* is properly applied as a designation in connection with certain terrible disasters. The truth is, however, that all these oily liquids constitute most perilous cargo. On the 6th of September last (a month full of calamities of this class),

the British ship Tom Volkes, conveying 770 barrels of (so-called) naphtha, from Liverpool to St. Petersburgh, caught fire in the North Sea, near Heligoland, by an explosion of the naphtha. The ship and cargo were half blown to pieces before the actual fire began; but then the flames were tremendous. In the words of Captain Wells (reported to the Board of Trade), after the crew had taken refuge on floating fragments of wreck, "the ship was now burning fiercely, like a volcano, the flames rising more than 300 feet high; and it continued so to burn for about a quarter of an hour. I then saw her settling down in the water, and almost instantly disappear through the vortex of the flames; the naphtha spreading and burning tremendously, the sea for at least half a mile in length being a sea of fire."

Many recorded disasters seem to support the opinion that a thin film of paraffin-oil kindles with fierce rapidity; and also that an explosive tendency is produced when vapour rises from heated oil in a closed cask or other vessel. So far as details have shewn, there is not much difference between petroleum and paraffin oil in the violence of the combustion when once ignited.

In regard to the inflammable nature of the liquid which caused the appalling calamity at Abergele, it appears that the liquid itself was not petroleum from the rock-oil wells of America, but a real paraffin oil distilled in England from minerals. It was made at the St. David's Works at Saltney, near Chester—an establishment in which oil for lamps is distilled from shale and cannel coal; and this particular kind was technically known as *Cambrian Oil*. Mr. Homfrey, manager of the works, stated in his evidence before the Coroner, that this oil is not explosive in the ordinary sense of the term; that no amount of concussion alone would cause combustion; that the oil is 37° F. *safer*, as regards temperature of inflammability, than the limit allowed by Act of Parliament; that brandy, whisky, turpentine, naphtha, and methylated spirit, would all burn furiously if exposed to the same ordeal as the casks of paraffin oil at Abergele; and that if the liquid had *exploded* (to use the language of some of the witnesses), the whole train would have been blown to atoms, instead of burning as it stood. A writer in the *Lancet* attributes the horrible silence in the burning train to three concurrent causes—anæsthesia, asphyxia, and nervous shock. Amylene, a very frequent constituent in paraffin oil, is known to possess anæsthetic properties, destroying the sensibility to external impressions; and this agent was possibly among the disengaged vapours of the oil. Then, as to asphyxia, the poor sufferers were likely to be speedily choked by a torrent of fœtid black smoke, full of carbonic acid, carbonic oxide, and other noxious substances. Lastly, the sudden shock produced upon the nerves would be likely to act as a powerful agent in rapidly extinguishing vitality.

Nitro-glycerine.—We have next to notice the third of these three oils, *nitro-glycerine*—the youngest of the group, so far as concerns practical use in the arts. It was discovered by Sobrero, of Turin, about twenty years ago, and was only known to scientific chemists until 1864; since which year the manufacture has been conducted with much activity. This formidable liquid is produced by the

mutual action of glycerine, nitric acid, and sulphuric acid, brought about by carefully-conducted chemical processes. There appears to be no sulphur in it; but the sulphuric acid aids the combination of the other elements. It is a yellowish oily liquid, about half as heavy again as water; inodorous, but having a peculiar sweetish pungent taste. It dissolves readily in most kinds of alcohol and ether. At 320° F. it begins to decompose, giving off red vapours.

The most important circumstance connected with nitro-glycerine is its wonderful explosive power; and the main controversy relating to it concerns the mode in which this explosion is brought about, whether by concussion or ignition, or both. Adriani, an Italian chemist, has been led by his experiments to infer that it does not inflame, nor, indeed, explode, at ordinary temperatures, when a naked light is applied to it. Richter, a Bavarian mining engineer, states that nitro-glycerine does not take fire easily; that it burns without exploding when ignited, and then only so long as the flame which has ignited it remains in contact with it. Explosion is a more serious matter than mere burning, in reference to this liquid. It seems to be agreed that nitro-glycerine will explode (1), when subjected to moderately strong percussion; (2), when exposed to the atmospheric disturbance due to the explosion of gunpowder; (3), when in contact with red-hot iron; (4), when exposed to the action of detonating fulminates; (5), when heated to a certain temperature; and probably under other analogous conditions. Its explosion is always very rapid and violent, unaccompanied by residue or smoke. Cold and heat seem alike to render the substance more dangerous than in the liquid state; seeing that, if allowed to crystallize at a low temperature, the crystals will explode with appalling violence, even when merely gently broken; while, on the other hand, if heated to a certain point the liquid becomes much more explosive than at a moderate temperature. Or, rather, an *un*certain point; for experimenters are not yet agreed as to the exact temperature at which explosion through heat will take place; probably the degree of purity has much to do with this matter. The temperatures of 180° F. and 320° F., have been named as the limits which different experimenters have met with.

All accounts agree that the explosive violence of this substance is many times in excess of that of the strongest gunpowder. The matter is estimated in the following way:—One cubic inch of the liquid forms 1,300 cubic inches of gas and vapour when it assumes an aëriform state; this gas and vapour expand at the moment of explosion to 8 times their natural bulk, or 10,400 cubic inches; and, as gunpowder yields only 800 cubic inches of gas and vapour when 1 cubic inch is exploded, it is inferred that nitro-glycerine is nearly 13 times as strong as gunpowder in blasting or exploding power. This is taking bulk for bulk; if taken weight for weight, the multiple is only 8 times.

The value of so powerful an agent for blasting in mines became soon apparent. If a pound of gunpowder will dislocate a certain quantity of rock, and if nitro-glycerine explodes with much greater violence, a pound of the latter will dislocate a much larger quantity of rock in the same space of time. Richter's experiments at Freiberg led him to the following conclusions:—That the nitro-glycerine he

employed wrought five times the effect of the strongest blasting gunpowder; that fewer men are needed to do the preliminary digging and hole-boring; that nitro-glycerine does not take fire so easily as gunpowder by contact with flame or spark; that there is not so much smoke after the blast, suspending the operations of the miners; and that a second blast to remedy a failure may be more safely ventured with the liquid than with powder. On the other hand, nitro-glycerine is dangerous from concussion in a degree not observable with gunpowder; the exploded gases are irritating to the eyes of the workmen; and the rock is rent in such large masses as to require much subsequent work in breaking them up.

It now becomes desirable to notice some of the accidents which have given rise to controversy concerning the uses and the dangers of this liquid.

Many persons obtained their first knowledge of the existence of such a substance as nitro-glycerine from the newspaper accounts of a terrific explosion in 1866. On the 3rd of April in that year a ship was being unloaded at Aspinwall, the Atlantic port of the Isthmus of Panama Railway; it was the European, belonging to the fleet of the West Indian and Pacific Steamship Company. Suddenly an explosion of intense violence took place, which shattered the ship, and caused the death of forty or fifty persons. It was found on inquiry that nitro-glycerine had been shipped on board the hapless vessel at Liverpool, to be conveyed by rail across the Isthmus, and thence by another steamer to California, to be used as a blasting liquid at some of the quartz diggings; and there seems no reason to doubt that the explosion of this substance, either by heat or by concussion, caused the disaster. The blazing hulk of the European, with deck and sides rent open, might have wrought vast mischief in the harbour by setting other ships on fire, but this was averted by prompt precautions, except in the case of the Caribbean, another vessel belonging to the same company. This ship, having been moored close to the European, bore a share in the explosive effects, the framework of the hull, though built of massive timber, with strong iron girders, being in many places crushed and broken. The wharf, in front of which the ships were moored, had 400 feet of its length torn up; and the sheds and warehouses became a mass of ruins. Many houses in the town were partially destroyed, and the floors driven in. When the circumstances were inquired into, it was found that seventy cases of nitro-glycerine, and a case containing 70,000 percussion caps, had been taken on board at Liverpool. The appearance of the dead bodies did not exhibit the blackness which would have resulted from the explosion of percussion caps, nor the scalding which would have resulted from steam; and it was inferred from these and other circumstances that the explosion had been due directly to the nitro-glycerine. In a litigation which arose out of this calamity Professor Roscoe stated that one single canister of the liquid would have sufficed for the destruction of the ship. The liquid had been shipped at Hamburg under the name of *glonoine oil;* it had come by sea to Hull, thence by rail to Liverpool, and thence by ocean mail steamer to Aspinwall. The shippers at Liverpool seemed to know very little about

it; and the verdict of a jury decided that the oil had been erroneously or insufficiently described by them. Colonel Boxer, superintendent of the Royal Laboratory at Woolwich, gave some curious evidence concerning percussion caps. It was suggested that the explosion had probably been caused by those caps; but Colonel Boxer stated this could not occur, and added: "I once put two ounces of gunpowder into the centre of 2,000 caps in a cylinder, placed the whole in a packing-case, and exploded the powder; one-third only of the caps were exploded, the others were untouched."

Another catastrophe, illustrative of the sudden and violent manner in which nitro-glycerine explodes, was that which occurred on the 17th of December, 1867, at Newcastle-on-Tyne. The police seized a quantity of this substance under the powers of the Act relating to dangerous explosives, and decided on getting rid of it by pouring it out on the town moor. While doing so the stuff exploded, and killed the sheriff, the town surveyor, a policeman, and three other persons. The inquest on this occasion brought forth much information touching the greater liability of nitro-glycerine to explosion by concussion than by heating. It transpired that thirty canisters of the liquid had been bought from M. Nobel, the manufacturer at Hamburg, about half a year before, and stored as "dirty grease" in a public-house; and for months an entire neighbourhood had been in peril of destruction without any one appearing to have been aware of the fact. It was estimated that the explosive force of the thirty canisters was equal to that of 90 cwt. of gunpowder, enough to loosen and blow down 115,000 tons of hard rock. Mr. J. Lothian Bell, an eminent chemist, coalowner, and iron manufacturer on the Tyne, stated, in his evidence at the inquest on this catastrophe, that he had employed nitro-glycerine as a blasting agent at his iron mines, but intended to discontinue its use, owing to the danger attending its use and the injurious effects upon the eyesight and health of the miners.

America had to deplore a similar destruction in the same month by the explosion of a canister containing sixty pounds of nitro-glycerine intended for use in blasting at the Berger Stone Quarries, near New York. Nine persons were killed, a dozen others wounded, and houses destroyed in various directions. On another occasion, at a slate quarry in Wales, a workman began to clean a waggon which had contained nitro-glycerine canisters; he did it by scraping with a bit of slate; inadvertently throwing the piece of slate into the waggon when he had finished, the percussion exploded a small remnant of the oil, and blew the waggon to pieces. In March, 1868, a canister containing 100 pounds of nitro-glycerine was landed at Sydney, in New South Wales; it exploded, four days afterwards, in a cellar. A scientific committee was appointed to investigate the circumstances of the accident. No other solution than that of spontaneous combustion could be suggested; brought about, possibly, by a change in the constitution of the liquid during the voyage, owing to the combined influence of heat and shaking. Hearing that another consignment of 400 pounds was about to arrive, the authorities interdicted the entrance of the ship into the outer harbour until she had either thrown the nitro-glycerine into the sea, or deposited it on some un-

inhabited spot. The committee also recommended the passing of a law prohibiting the keeping of this dangerous liquid in any inhabited house whatever, limiting to ten pounds the quantity allowed to be kept in any one spot in Sydney, defining 300 yards as the distance from any inhabited house or public thoroughfare, in other towns, within which a greater quantity than ten pounds might be kept, and making a limit to half-a-pound of the quantity to be kept within 100 yards of any inhabited house in Sydney. In June, 1868, at Quenast in Belgium, 1800 kilogrammes of nitro-glycerine were conveyed in waggons to M. Zaman's quarries. While being removed from the waggons, one of the canisters exploded, and in its turn exploded all the others. The destruction was wide and terrible; ten persons were killed instantly, while stores, houses, trees, and even fields were devastated to a distance of five hundred yards.

Even M. Nobel himself, the chief manufacturer of nitro-glycerine, has not been exempt from peril. The newspapers last summer contained a notice of the blowing-up of a factory belonging to him at Stockholm, killing fifteen persons and wounding many others.

The storing of nitro-glycerine in populous places often gives rise to well-grounded uneasiness. On a recent occasion, a mining-agent sojourned for a short time in a house at the west end of London; and, on taking his departure for South America, inadvertently left behind him a small square box. Under these circumstances the box was opened, and was found to contain nitro-glycerine, in all probability intended for mining operations across the Atlantic. A chemist analyzed the nitro-glycerine, and found it to be of great strength. Thereupon a singular doubt arose concerning the letter and spirit of a particular Act of Parliament, when a police magistrate was solicited for his advice and assistance. He found that the Act of 1862 applies only to petroleum; for in that year the dangerous character of nitro-glycerine was hardly known. He found also that any previous statutes concerning the storing of explosive substances bore relation more or less to "the carrying out of felonious or other illegal objects." The magistrate felt justified in assuming that if the legislature had known or foreknown the danger, nitro-glycerine would have been included in the same category as petroleum; and so he decided to treat the matter as if it came under the Act of 1862. Further inquiry, however, enabled the magistrate to deal with the matter under the Statute of 1866. The explosive agent appears to have been in the solid form (perhaps the *dynamite* presently to be noticed); for, in accordance with the magisterial decision, the dangerous substance "was removed with great precaution by the police, crumbled up almost into grains, and dropped piecemeal into a running stream eighteen miles from London." Of the Statutes here adverted to, we shall have a little more to say presently.

We have said that the vast explosive powers of nitro-glycerine suggested its use as a blasting agent in mines and quarries. It was in Germany that this mode of application commenced, under the direction (we believe) of Nobel himself, in 1865; this was at the tin mines of Altenberg, in Saxony. In the next following year M. Kopp introduced the system at Schmidt and Dietsch's stone-quarries near Zorn,

on the Lower Rhine. Kopp made the nitro-glycerine himself, on the spot. He strongly recommended such a course always to be followed, if possible, to lessen the chance of danger; and, in a published memoir on the subject, gave instructions how to make it. His mode of using the liquid was as follows:—Vertical holes were bored in the rock; oil was poured into each hole through a funnel; a small canister of powder, some sand, and a Bickford fuse, were added; the fuse was lighted, and after a definite interval of time the explosion occurred.

Hitherto, mines and quarries are the chief places where this potent agent has been employed; but a commencement has been made of its use in engineering works, and other localities in which large masses of rock have to be loosened. The summit tunnel of the Central Pacific Railway, perforating the Rocky Mountains, is being formed by its aid. The holes required for the blasting-cartridges can be drilled in one-third of the time required for gunpowder; and the completion of the tunnel is expected to be much expedited by this fact, and by the larger masses of rock loosened at each blast. The oil is made on the spot, to avoid the danger of carriage; Chinese miners are employed to fill the cartridges with it (the oil is not here used in the same way as at Zorn); and the operations have presented a generally favourable result. This form of nitro-glycerine is there called *nitroleum*, and differs somewhat in character from Nobel's glonoine or blasting oil; its general mode of explosion is by percussion, but neither by friction nor by fire. Each tin case of the liquid is separately packed in a wooden box.

It is quite clear that, in reference to nitro-glycerine, as to petroleum and paraffin oil, the conditions of safety have not yet been determined. No sooner is an assertion made, on what seems to be trustworthy authority, that the liquid may be used without peril, than some dire calamity occurs which arouses suspicion and terror. Something has been said in a former page of the relation which nitro-glycerine bears to heat and to concussion; and much of a similar kind might be added if necessary. M. Adriani, already mentioned, states that at 320° F. the liquid begins to decompose, giving off red vapours; and that if the heat be suddenly applied, or slightly raised above this point, the substance explodes instantaneously and violently. If so, heat is a terrible neighbour to this substance. That the more impure the nitro-glycerine is, the more readily it explodes, is an opinion held by many authorities. When the accident occurred in America in December, 1867, a jury investigated the circumstances, and Professor Doremus was employed to make experiments on the action of the oil under varied circumstances. He reported (1), that nitro-glycerine will *not* explode even when a piece of red-hot copper, or a burning coal, is thrust into it, provided the liquid is open at the top and not in any way confined or compressed; (2), that if confined or compressed, it will explode even at a low heat; and (3), that if paper be moistened with it, placed on an anvil, and struck with a hammer, it will explode. Sudden heating by a blow is evidently one of the sources of danger here.

In an article in the *Chemical News*, it is confidently asserted that accidental explosions of nitro-glycerine might be almost entirely

prevented by using the substance in a modified form. "It has recently been discovered that nitro-glycerine dissolved in two or three times its bulk of methylated spirit is quite inexplosive. When required for use, the addition of water will precipitate the oil, the layer of water and spirit merely requiring to be decanted off. The nitro-glycerine separated in this way possesses explosive properties quite as active as the original oil, which, indeed, is frequently rather improved than otherwise by the treatment. The process we have described is sometimes used. At Newcastle a part of one canister was found after the explosion, marked 'Safety solution of nitro-glycerine in wood naphtha.' It is, however, quite certain that there must have been present a quantity of oil either entirely untreated, or treated with an insufficient quantity of the protecting fluid. It should be remembered that nitro-glycerine, dissolved in a small quantity of methylated spirit or wood naphtha, in warm weather, might crystallize out in winter when the temperature approaches the freezing-point of water. Probably this was what occurred at Newcastle."

The "protecting" process here mentioned has occupied much attention. It partly suggested, and was partly suggested by, the protection of gunpowder, Mr. Gale's process for which has excited some interest. Here the gunpowder is mixed with pounded glass, so completely that each individual grain of powder is separated from the rest by an envelope of minute grains of glass. This isolation prevents, or at least retards, the spread of explosion from grain to grain, insomuch that it is said to be almost impossible to explode a barrel of powder thus protected. So complete a safeguard would seem to be highly valuable; and yet the protected gunpowder has not come much into use. Although a barrel of such powder can bear almost any ordeal of fire, there is danger in the preliminary mixing, and still more danger in the subsequent sifting and separation; the manufacturer might perhaps guard against the former, but the purchaser is much exposed to the latter during the separation of the glass from the powder. Dry mixing, or dry protection of an analogous kind, is one of the modes suggested for rendering nitro-glycerine less dangerous, the liquid being mixed with sand or some other inert solid. Methylated spirit is, as we have seen, used as a protector.

M. Nobel has also introduced a solid preparation of the nitro-glycerine under the name of *dynamite*. Even this substance unquestionably has its dangers, although they may not be so great as those of the liquid itself. The strength is so far reduced that dynamite cannot be exploded by concussion unless very violent; but when it does explode, its violence is far greater than that of gunpowder. Nobel has invented it to be used in the same way as blasting powder (not blasting *liquid*), to be ignited by a sort of percussion cap. One of the earliest notices of this dynamite was contained in a consular report written last June. Mr. Perry, British Consul at Stockholm, reported that M. Nobel had been led to its adoption by the inconvenience attending the liquid form of nitro-glycerine, and also by the facility with which it explodes on concussion; that the new powder has all the explosive power of the liquid without its danger; that its safety in transport, loading,

ignition, and concussion had been remarkably shewn in a series of experiments conducted at Hufvudstä near Stockholm. This light-coloured powder, something like brickdust, can be used as a blasting agent in natural crevices in the rock or ore, without the necessity of boring holes. Mr. Perry added to his account that "if ignited with a match, or in any other way, it burns with a clear flame without report or explosion; and it is so insensible to concussion that it can only be exploded by a very strong charge." Dynamite *may* deserve this high character; but there has been recent proof that it is not without its perils. The Wigan Coal and Iron Company, who had begun to use this substance in their mineral operations near Ince, endeavoured (on the 10th of August last) to remove by its means a mass of 40 tons of slag which had accumulated at the bottom of one of the smelting-furnaces. Twenty or thirty holes were drilled into the slag; one of them was charged with 10 oz. of dynamite, and exploded. The effect produced not being sufficient, more dynamite was placed in the same hole, but the process was so badly managed as to lead to fatal disasters. It would not, however, be just to draw an inference from such an instance as this, unless to the effect that all the operations connected with the use of explosive or inflammable substances should be managed with special caution.

M. Nobel has defended his inventions against the charges brought against them, on the ground just adverted to: that the substances ought not to be voted dangerous merely because careless people do not know how to handle them. "In five instances," he says, "congealed nitro-glycerine had been melted purposely over the fire. In three instances a red-hot poker has been plunged into the oil in order to melt it. In one instance a man took to greasing the wheels of his waggon with nitro-glycerine, knowing what it was; and it went all right until it (the wheel) struck hard against something, and then the whole went to pieces. In one instance it was burned in a lamp as an improvement on petroleum." After citing such examples as these of disasters arising from carelessness, he adds: "Whenever an article can be regularly manufactured, it can be regularly used." This aphorism sounds well and appears cogent; but if it be true that Nobel's own factory at Stockholm has been blown to pieces by his own nitro-glycerine, we might smile at the aphorism, were not such matters too serious for smiling. It might remind us of the fire at Phillips's fire-annihilator factory, which the ordinary fire-engines were called in to quench.

It is certainly not for want of ingenuity if the dynamite should fail; for Nobel has sought to prepare it in such a way that neither a spark nor a blow alone can explode it, the two agencies being required in conjunction. Protection by methylated spirit is disliked by some users owing to the trouble needed in separation before using; and this seems to have been one of the circumstances which led to the invention of dynamite—a solid explosive many times more powerful than gunpowder. Solid nitro-glycerine itself, if some testimony can be relied on, is safe against even rude concussion. One of the workmen employed at the quarry near New York, where the explosion took place, said in his evidence before the jury, "I have seen a

man let a can of frozen nitro-glycerine fall from his shoulder on a rock without exploding it; and I have seen a chunk of it as big as my hat cut open with an axe." If this be so, percussion of a mass of nitro-glycerine in the solid or frozen state is less perilous than that of a thin film in the liquid state; while other experiments tend to show that at a temperature not very far above that of boiling water, when the reddish fumes begin to arise, the liquid oil is very dangerous to have anything to do with.*

Incidental mention has been made above of Acts of Parliament relating to some of these dangerous substances. They were based, naturally enough, on the experience gained in relation to gunpowder, concerning which legislation took place nearly a century ago. The Gunpowder Act enforces the necessity of licensing all powder mills; the use of crushing rollers instead of pestles; the limitation in the quantity of powder made at one time and place; the building of magazines at a safe distance from the mills; the limit of quantity to 200 lbs. kept at one time by a dealer, 300 lbs. at a mine, 25 lbs. conveyed by land, and 200 lbs. by water; defining Blackwall as the point above which no vessel in the Thames may contain more than 25lbs.; and establishing a few other precautionary regulations. A supplementary Act in 1846 enforces certain rules in regard to the manufacture and storing of explosive substances containing gunpowder or its ingredients; and there have been special statutes concerning fireworks. In 1862 was passed an "Act for the safe keeping of Petroleum," which contains the following provisions:—Not more than 40 gallons of this liquid shall be kept within 50 yards of a dwelling-house, or a building in which goods are stored, except in pursuance of a license granted by certain local authorities. These local authorities are the Lord Mayor and Aldermen of London, the Metropolitan Board of Works, the mayors and aldermen of municipal towns generally, the improvement commissioners of other towns, the harbour trustees in certain ports, the town councils of Scotch burghs, and the justices in petty session in places where there is no other local authority. Any product of petroleum shall be included within this prohibition which gives off inflammable vapour at less than 100° F. In case of the refusal of a license, there is to be a power of appeal to the Secretary of State. Search for petroleum may be made in the same way as for gunpowder. When the dangerous properties of the new liquid, nitro-glycerine, became known, the Act of 1866 was passed "For

* At the Norwich Meeting of the British Association (August, 1868), M. Nobel gave a little further information concerning dynamite. He stated that most of the accidents arising out of the use of nitro-glycerine appear to have been due to some kind of leakage, and that it is difficult to prevent this in casks and canisters. He is also not satisfied with it as a blasting oil when poured into holes in the rock, because, when it finds its way into narrow fissures as a thin film, it is more dangerous than in bulk. He invented dynamite to avoid these evils. Dynamite consists of 75 per. cent nitro-glycerine, and 25 per cent. porous silica; it is a slightly-pasty substance in consistence. M. Nobel states that he had subjected this new substance to the following severe tests: (1) a box containing 8 lbs. of dynamite was placed over a fire, and slowly burned away without any explosion; (2) another box containing 8 lbs was hurled down 60 feet on a rock, without exploding; (3) a heavy weight of 200 lbs. was dropped 20 feet on a box containing dynamite, smashed the box, but produced no further result. The power of the substance has been shewn thus: 6 oz. burst a solid block of iron 11 inches diameter by 12 high. M. Nobel added that he has made and sold 32,000 lbs. of nitro-glycerine in 1865, 49,000 lbs. in 1866, 77,000 lbs. in 1867, and 64,000 lbs. in the first half of 1868.

the Amendment of the Law with respect to the Carriage and Deposit of dangerous Goods." This statute enacts that nitro-glycerine, or glonoine oil, shall be regarded as a dangerous substance; that an Order in Council shall at any time be sufficient to declare other substances dangerous; that such goods must be marked, and a notice given of their character, with the words "specially dangerous" distinctly marked on the outside of the package; that a breach of this rule shall be punished with a heavy fine if knowingly done, with a smaller fine if the dangerous nature of the substance was unknown to the consignor, and with simple forfeiture if there were no reasonable means for him to obtain such knowledge; that no warehouse-owner or carrier shall be bound to receive or carry any goods which are specially dangerous; and that the term "carrier" is to include persons or bodies carrying goods or passengers by land or by water. This statute, it will be seen, is more stringent than that of 1862, seeing that the latter allows the possession of 40 gallons of petroleum without a license, in the same way that former Acts allow the possession of a certain quantity of gunpowder; whereas the Act of 1866 places the storing or transport of *any* quantity of nitro-glycerine under license regulations. In the recent session of Parliament (1868) another Act was passed (cap. 56), enforcing rules for the safe keeping of these dangerous substances. (See the section of the present volume containing Abstracts of important Public Acts.)

It is a question well worthy of consideration whether the above statutes do not give to railway companies a power of choice as to the conveyance of petroleum, paraffin, and nitro-glycerine; and whether, if it does, they ought not to refuse such conveyance. Doubtless, it is very useful to supply Dublin with lamp-fuel made of mineral oil, and the Welsh slate quarries with blasting liquid made from glycerine; but, in the present state of our knowledge, the transport of these substances is too perilous to human life to be left without further regulation. Engine fires are a necessity, and concussion a frequent liability, in railway trains; and these are precisely the kinds of agencies which become perilous with such liquids. So great is the objection of insurance offices to these dangerous substances that special warehouses have been built at Victoria Docks and at Liverpool and special vessels chartered to bring petroleum from America to England. The London and North-Western Railway Company have very properly taken one step in the matter of precaution; seeing how tremendous are their liabilities under the contingency of such an accident as that at Abergele. Some weeks after that deplorable occurrence they issued a notice to the effect, "That they will not carry in any of their vessels trading between the ports of Holyhead and Dublin any petroleum, Rangoon oil, Burmah oil, any product of them, or any oil of petroleum, peat, or other bituminous substance, or any gunpowder, aquafortis, oil of vitriol, or any other goods which, in the judgment of the company, are of a dangerous character." The notice does not relate to the railway itself; but as large quantities of these oils are sent along the line from works near Chester for shipment at Holyhead to Dublin, the new rule will possibly lessen the amount sent by that route. Something more than this, however, is

needed—in the organization of trains, in the kind of casks used for the oil, in the placing of the casks in the trucks, in the position of the oil trucks in the train, &c.

It may here be mentioned that when "Fenian fire" and barbarous explosives were occupying public attention at the close of 1867, Lieutenant-Colonel Ewart, of the Royal Artillery, was requested by the Home Secretary to publish a memorandum concerning Greek fire and explosive liquids. This memorandum states that true Greek fire is a solid combustible, nearly like the Carcass composition employed by artillerists; that the modern or imitative Greek fire is a liquid made of phosphorus, sulphur, bisulphide of carbon, and some kind of mineral oil; that when this liquid is thrown on an exposed surface, it quickly evaporates, and leaves behind it a solid film which inflames spontaneously; that the flame from such a film may be extinguished by wet sand, ashes, lime, powder, sawdust, or sacking—any of them better than water. There is here something to notice, analogous to facts already mentioned touching paraffin oil, petroleum, and nitro-glycerine: viz., the dangerous qualities of the liquid when evaporation is going on.

GEORGE DODD.

IV.—SCHOOLS INQUIRY COMMISSION.

WITHIN the last ten years, three Royal Commissions have been appointed to report on Education. The first Commission directed its attention to schools for boys and girls of the labouring classes, where education was aided by grants of public money; the second Commission restricted its inquiries to nine schools: namely, Eton, Winchester, Westminster, Charterhouse, St. Paul's, Merchant Taylors', Harrow, Rugby, and Shrewsbury; the third, and most recent Commission, was authorized to investigate all schools not included within either of the above-named categories. It is proposed in the ensuing pages to present a brief abstract of their Report, an abstract necessarily imperfect, owing to the limited space at command, yet sufficiently full, it is hoped, to attract the attention of parents and others, who have little leisure for voluminous reading, yet who wish to know some of the latest opinions and facts concerning middle class education.

The need of such an inquiry may be inferred from the following paragraph, which occurs at the close of the Commissioners' Report:—"The result of our inquiry has been to show that there are very many English parents who, though they are willing to pay the fair price of their children's education, yet have no suitable schools within their reach where they can be sure of efficient teaching, and that consequently great numbers of the youth of the middle class, and especially of its lower divisions, are insufficiently prepared for the duties of life, or for the ready and intelligent acquisition of that technical instruction, the want of which is alleged to threaten such injurious consequences to some of our great industrial interests."

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It will be at once perceived that this inquiry covers a very wide space, for, with the exception of nine schools, it includes all edu-

cational establishments which do not participate in the Parliamentary grant. These establishments may severally be distinguished as *Endowed*, *Private*, and *Proprietary Schools*, nor is Female Education omitted from the inquiry.

The Commissioners obtained their information in the following manner :—They examined witnesses by word of mouth ; they sent circulars of questions to schoolmasters, trustees, and others ; they employed Assistant-Commissioners to make personal researches ; and they received voluntary communications from various persons of eminence. The circulars were sent to 700 endowed schools, to 10,000 private schools, and to all the proprietary schools. The final result of these inquiries is comprised in no less than twenty volumes. The first volume, on which this article is based, contains the Commissioners' Report ; the second volume embodies the communications of persons of eminence, together with other miscellaneous matter ; the third is occupied with an account of eight of the chief Endowed Schools ; the fourth and fifth volumes are devoted to oral evidence ; the four next volumes to the Assistant-Commissioners' General Reports ; and the eleven last volumes to Special Reports on Grammar Schools.

It is useless to attempt to enforce any system of theoretical excellence without consulting the wishes of parents. Unfortunately, they are often so untaught themselves that they cannot appreciate the advantages of education for their children. In many cases they scarcely care for education at all, or they set an undue value on mere show, or they estimate the worth of their children's training by its immediate pecuniary advantages. Yet their wishes, vague and faulty as they often are, deserve careful consideration. Many excellent endowments are useless at the present time, because they offer one kind of education, while the parents wish for another. It seems only reasonable that, if it be practicable, the children should be taught that which the parents desire they should learn, and such a concession being granted, they would probably be willing to leave the manner of teaching it in the hands of the school authorities.

School education may be conveniently divided into three grades, namely, that which is intended to stop at the age of fourteen, that which is to stop at sixteen, and that which is intended to continue up to eighteen or nineteen, and these are severally styled by the Commissioners the Third, Second, and First Grade of Education. These distinctions correspond roughly to the gradations of society.

Parents who intend their boys to stay at school till eighteen or nineteen are regarded under two divisions, namely, those with ample means, and those with limited means. The former class are identical with those who send their sons to the great public schools, such as Eton or Harrow. Such parents seem to have no desire to displace the classics from their present position in the forefront of English education, but they wish to add other subjects of instruction. They do not wish to change, but to widen ; to keep classics, but to cultivate more carefully, to add modern languages and natural science. Such changes have already been adopted in several of the great schools of modern foundation, such as Marlborough and Cheltenham. Modern departments have been added, in which Greek is dropped altogether,

and Latin diminished. But it is significant that parents, though approving of the experiment, are unwilling to send their own boys into these departments. They like their boys to be as other boys, and not marked off by anything peculiar; besides, even if they do not intend their boys for the universities, they are unwilling to give them an education, which, under the present university regulations, would prevent their entering there. The new departments, therefore, are apt to become the refuge of the idle and the dull, and consequently are generally failures.

But parents of limited means, who have themselves received a cultivated education, and do not wish their children to fall below their own standard, desire to cheapen education rather than to widen it. They complain that the classical education of the highest order, which in the last century was to be obtained at the small grammar schools scattered over the country, is now only to be got either at the great public schools, or at almost equally expensive boarding schools.

Parents of the second grade may also be divided into two classes: those who could well afford to keep their children at school two years longer, but who intend them to become soldiers, solicitors, or engineers; and those whose necessities compel them to send their sons out to begin earning their living at sixteen. Neither of these subdivisions have much regard for Greek, and while the former are not averse to Latin, because of its social value, of its aid in acquiring modern languages, and of its use as an instrument of mental discipline, the latter seem barely disposed to tolerate it. Mercantile men are said to be especially bitter against classical teaching. They allege that the shortness of the school career of their sons prevents them from reaping the benefits of a lengthened classical training; and as, in their opinion, mathematics, modern languages, chemistry, and the rudiments of physical science are absolutely essential, classical teaching should either be altogether abandoned, or provided so as to occupy but little time. These views, however, are by no means universal, and in some parts of the country, classics are regarded as favourably by business men as other studies. It is worth noting, that in one district (Warwickshire) the people disliked the grammar schools, not because they taught Latin, but because they failed to teach writing and arithmetic properly.

The third grade of parents consists chiefly of the smaller tenant-farmers, the small tradesmen, and the superior artizans. The chief aim of this class appears to be "very good reading, very good writing, very good arithmetic," and a very sensible aim it appears to be. Nor is it so easy of attainment, and comparatively few men, even of high culture, can boast of a perfect acquaintance with what the late Alderman Curtis used to call the three R.'s.

Such, on the whole, appear to be the wishes of parents. But they naturally look to results rather than to processes. To learn something of the methods of acquiring this desired knowledge, to discover how to combine high culture with practical information, recourse must be had to those who have made education their study.

On the question being asked whether education should be general,

or whether schools should train boys for special employments, the authorities almost unanimously decided in favour of the former alternative. A boy, whose powers of mind have been carefully trained, speedily makes up for special deficiencies, and special subjects are often taught wrongly. A boy, for example, who learns bookkeeping at school, finds often that the system he has learnt is not that which he afterwards has to practise, whereas a thorough arithmetician would speedily learn any system.

Regarding the school, therefore, as the means of giving general education, the subjects of instruction may be classed under three heads, namely, Language, Mathematics (in which Arithmetic is included), and Natural Science. Of these three, the great bulk of witnesses agree in thinking the most efficient instrument of education to be language. This view is forcibly upheld by the Commissioners. As all civilization takes its rise in human intercourse, nothing appears to develop and discipline the whole man so much as the study of human speech. Nothing tends to remove narrowness of mind so efficiently as that clear understanding of language which enables men to appreciate the thoughts of others; and when the study of language can be followed by that of literature, not only breadth and clearness, but refinement, becomes attainable. At the same time, it must be admitted that to a certain extent the cultivation derivable from language will be supplied by the ordinary intercourse of life, whereas the "material studies," if not regularly taught, will probably be never learnt at all. Much weight must be attached to this consideration where the length of time assigned to education is very short. But the great majority of witnesses pressed the claims of language, and some stated that they would teach Latin, if only for two years, and even to peasants, if peasants could be induced to learn it.

Greek was not regarded as absolutely essential, even in the first grade; but there was a great preponderance of evidence in favour of Latin. Nothing teaches English grammar so well as Latin grammar. Latin is the common gateway to French, Italian, and Spanish; it enters largely into the composition of English; it is in itself a beautiful language, and no modern language can rival it in the fulness and precision of its accidence. Schoolmasters were almost unanimous in regarding Latin as the chief educational instrument; and even if it be objected, that they speak thus because they can teach nothing else so well, this is an additional argument in favour of Latin instruction, because for some years to come, whatever is to be done in the way of education must be done through and by the present schoolmasters.

Persons of less practical acquaintance with education were less hearty in their demand for Latin, and some of them strongly advocated the study of English, if not in place of the classics, at any rate by their side. There certainly seems no reason why English should not be as carefully and effectually taught in English schools as French is in French schools, or German in Prussian schools. At the same time, as Mr. Derwent Coleridge observes, it is a far more rare and difficult accomplishment to teach English as a study than to teach Latin; and he holds that a *scholarly* acquaintance with the English language can be most quickly and thoroughly gained through the Latin.

Turning to modern languages, the Commissioners observe that, independently of its practical utility, which is daily increasing, French affords the best discipline to the mind, next to Latin. But before it can be efficiently taught in English schools, a new race of teachers must arise, equally versed both in French and English. As a grammatical exercise German is, perhaps, still more valuable on account of its numerous inflections.

Arithmetic may be regarded as simply indispensable. It is the gateway, not only to all natural science, but to a large part of men's dealings with each other. Moreover, it can be successfully taught to very young children, who are unable to grasp even the elements of grammar. With reference to mathematics, there seems no general desire to push their cultivation much further than at present, but they might be more efficiently taught. In this branch the Scotch are considerably ahead of the English, a superiority which is attributed to the fact of their teaching being practical rather than abstract. Euclid is condemned as an unsuitable text-book for beginners. It has long since been disused in French and German schools. Drawing, the study of which is closely connected with that of practical geometry, deserves warm encouragement. One witness recommends that it should be taught to every child as soon as he goes to school. At the Liverpool Institute there are nearly a thousand boys, and they all learn drawing. The study of natural science has of late years been much pressed on the attention of schools by scientific men, and has been adopted by the universities as an optional part of their curriculum. Witnesses who were not schoolmasters were strongly favourable to some branch of natural science, while the opinions of professional teachers were much divided, some holding the strongest conviction of its importance, others entirely discrediting its utility. It is evident that, in order to be useful, it must be well taught, and few people are at present capable of teaching it well. Boys too often gain their ideas of natural science either from a master who is himself a mere tyro, or from the startling experiments of some peripatetic lecturer. Little solid benefit can be expected from either species of teaching. In the City of London School—which may be taken as a model specimen of a school conducted on the modern aim of teaching something more than classics and mathematics—in this establishment all the boys are taught natural science. And as a proof that natural science, well taught, does not hinder other studies, boys from the above school, who have achieved high distinction in natural science at the universities have also obtained the highest honours in classics and mathematics.

Concerning religious instruction, the evidence proves that the great majority of parents decidedly desire that their children should be religiously brought up; very few express the least wish for a purely secular system, and the vast majority would be unwilling to see the subject of religion, and especially the teaching of the Bible, excluded from the schools. At the same time there does not appear to be much desire for denominational teaching. Churchmen do not require that their children should be educated apart from the Dissenters, though Roman Catholics would generally object to allow their children to receive religious instruction from Protestant teachers. As a rule, if

parents feel that they possess the power of interference in such matters, they are seldom inclined to exercise it.

Denominational schools frequently possess the advantage of being officered by able instructors who teach from zeal and not from mere self-interest, but sects are so mixed up in this country that in thinly-populated places, either three or four schools would be needed, or the minority would have to go without schooling altogether. The objections to purely secular schools are still more serious. The establishment of such a system would alienate the sympathies of many earnest-minded men, and drive them to support schools expressly intended for the teaching of their own religious views. Schoolmasters would be much hampered by the command to abstain from all religious teaching, for it is almost impossible to draw a sharp line of division between what is secular and what is religious in the school life. Further, it must be remembered that school reformers have to deal with schools, not as they might ideally be, but as they are. Religious instruction has been imparted in many of them for centuries past, and could not be lightly discarded. Indeed, the Commissioners are of opinion that the so-called "religious difficulty" is either altogether unreal, or is easily settled by the exercise of common sense and mutual forbearance. They recommend that in the case of day scholars the parent should have a right to withdraw his child from any part of the teaching to which he conscientiously objects, and that in the case of boarders, the trustees* should be required, if the master refuses to allow the parent such exemptions, to arrange that the boy should board elsewhere, and attend the school as a day scholar.

The relative advantages and disadvantages of boarding and day schools are thus described. To a boarding scholar the school is the world, and its work, its promotions, and its failures, make a much more vivid impression on his mind than if he is being daily reminded of the much larger world existing outside its walls. The boarders generally prepare their lessons together, and so stimulate each other. Even when both are on the same social level, boarders generally beat the day-boys in scholarship. The boarding school, moreover, teaches self-reliance. A boy cannot always lean on his parents, and in a good boarding school there is a wholesome public opinion, and occasionally a traditional sentiment of honour, which keeps a boy from going wrong. Then boarders manage their games in the play-ground better than day-boys, and these games teach them fairness, control of temper, obedience to authorities of their own choice, and co-operation for a common end, all of which are valuable qualities in after life. But these advantages are only to be found at *good* boarding schools; the public opinion of an indifferent boarding school is likely to do more harm than good, and then the day scholar has the advantage. Some boys, too, are better for being sheltered from certain temptations as long as possible, and some of the witnesses who defend the large public boarding schools are not always disposed to favour smaller

* N.B.—Trustees. Such difficulties, the reader may be reminded, are only likely to occur at *endowed* schools, where the pecuniary benefit conferred by the endowment renders the parent unwilling to remove his child. In the case of a *private* school, the remedy would, of course, be simple removal.

boarding schools for boys of a lower social rank. Day schools are much cheaper than boarding schools, a consideration of much weight for parents of narrow means.

A large day school is impossible in a thinly-peopled district, but a boarding school may be established anywhere, since, if well conducted, it is sure to attract pupils. And a large school possesses many advantages over a small one. The relative cost of instruction and maintenance is diminished, it is easier to create a healthy public opinion among the scholars, and to neutralize the evil influence of one or two bad boys.

Parents of the first grade generally prefer boarding schools, but in the metropolis and other large towns there is plainly room for large day schools of the first grade. For scholars of the second and third grade, day tuition is recommended. "As we descend lower in the social scale," says Mr. Fitch, one of the Assistant Commissioners, "the value of a boarding school, as a place for the formation of character, appears to lessen. The schools are smaller, they have little or no history; and the average tone of manners and thinking in them is not very elevating. A boy is better off who attends a good day school, and spends his leisure with his parents and sisters." Although there is a demand among thinly-scattered families of the second grade, for cheap and efficient boarding schools, it appears that on the whole this class must be chiefly dependent on day schools. These, in towns, should be situated in the outskirts, so as to have play-grounds; in the country, at the point where two or three parishes intersect, and if provided with a well-arranged system of day-boarding, they would fairly meet the wishes of tenant farmers and others.

Assistant-Commissioners were sent to investigate the state of education in other countries. It was not expected that they would find models for exact imitation, but rather that they would obtain valuable hints for English guidance. The New England system appears to be weak where Old England is strongest, namely, in schools of the first grade; strong where Old England is weakest, namely, in schools of the second, and especially of the third grade. The American system in its most perfect form consists of *primary* schools for children of from 5 to 8 years old, where the teaching is purely elementary; of *grammar* schools where the education is carried on till 14 or 15 years of age; and of *high* schools, some of which are intended to lead to the university, while others themselves grant degrees. The religious instruction in all these schools is strictly unsectarian. As a rule every school opens with prayers, and provision is made for reading the Bible. But as the Bible is read without note, explanation, or comment, no complete religious instruction can be given within these limits. The parents, however, seem to be fairly satisfied with this amount of religious teaching, supplemented as it is by the instruction of the Sunday-schools. The schools are absolutely in the hands of the people, the State simply requiring their establishment; most of them are perfectly free, and the expenses are defrayed out of the local rates levied on property. Thus, the best education that the country affords is placed within the reach of every child. Attendance is nominally compulsory, but as the compulsion is not fully backed by public

opinion, scholars attend quite as irregularly as in England. The teaching is not perfect, the text-books are not the best, too much reliance is placed on the mere memory, the teachers are young, often ill-paid, and do not stay long in the profession. But the system has the great merit of being alive. The teachers have the gift of turning what they know to the best account; they are self-possessed, energetic, fearless; they are admirable disciplinarians, firm without severity, patient without weakness, their manner of teaching is lively, and fertile in illustration. These schools seem exactly suited to the American people, and without the American energy to inspire them, and the American political life to follow them, it may be doubted whether they would attain any real success. They fail in imparting the highest culture, but they supply every citizen with as much education as is indispensable for the ordinary duties of life. "If not the most highly educated, the Americans are the most generally educated people on the earth."

The school-system of Upper Canada closely resembles that of New England, but the mode of teaching and the results produced are more like those of the mother-country. The Canadian schools are more thorough, the American more brilliant. "Entering a Canadian school, the first feeling is one of disappointment. One misses the life, the motion, the vivacity, the precision of the American. But, gradually, disappointment changes to surprise. You find that this plain unpretending teacher has the power of communicating real, solid, useful knowledge, and that his pupils, if they do not move rapidly, at least grasp firmly. The Canadian chooses his type of school, as the Vicar of Wakefield's wife chose her wedding-gown, 'not for a fine glossy surface, but for such qualities as will wear well.'"

The Scottish system appears to comprise three grades of institutions for education: the parochial schools, intended chiefly for primary instruction; the burgh schools, or academies for secondary instruction; and the universities. But each of these grades overlaps the other, each institution takes its own line, and teaches what it pleases. Great discretion is permitted to parents. There is no fixed course imperative on all the scholars, but separate fees are charged for each separate subject, and the parent decides what subjects his boy shall learn. One boy may learn nothing but mathematics, another nothing but Latin. Mr. Fearon draws a graphic picture of a Scottish burgh school, showing the eager industry of the scholars, and the masterly activity of the teacher. But the real motive force, which makes these schools so admirable, lies outside the school, in the extraordinary interest which the parents take in their boys' progress. "What place in the class to-day?" would be the first question asked when a boy went home after school; then would follow questions as to what he had read; whether such and such a neighbour's son was above or below him; and if above him, why so; and whether, if he worked a little harder, he could not manage to take him down; how he had gained or why he had lost a place; who was *dux;* and did he think he had a chance of ever being *dux*, and so on; every word showing the keen interest the parent feels in the son's progress, and the importance which the whole family attach to his success. The schools are practically in

the hands of the parents; the parents use the masters to educate their sons, but they themselves direct the education.

The above account has been transcribed at full length, because of its exceeding interest and importance. When parents on this side of the Border learn to take the same interest in their children's school career, most educational difficulties will vanish. But the Scotch system presupposes two things which are seldom found conjoined in this country, namely, a simple mode of life combined with considerable mental cultivation. Parents who are immersed in social gaieties have no leisure for catechising their children thus, while the mass of the lower middle class in England are too untaught to appreciate the advantages of cultivation in others.

The French system appears to be a perfect piece of machinery for the cultivation of the intellect. On the moral side it is decidedly weak, and it is as defective as the English system in the education provided for superior artizans and small tradespeople. The schools are of two chief grades: first, the primary; secondly, the *Colléges Communaux* and *Lycées*. Every commune is bound by law to establish a primary school, and 29,000—the total number of communes being 30,000—have already done so. These schools teach up to the age of twelve or thirteen. The fees are never high, sometimes the schools are quite free. The teachers are trained in normal schools, and are appointed and dismissed by the Prefect of the Department. The instruction is much on a par with that of elementary schools in England; the reading and arithmetic somewhat better, the writing and the knowledge of history and geography not so good. The *lycées* are established by the State, one in each department; they are organized on a complete system, and the teachers must have received the highest guarantees of capacity; the *colléges communaux* are established by the *communes*; they are often incomplete in their course of study, and their teachers are of inferior ability and attainments. The entire course at a *lycée* is most elaborately mapped out, and lasts for nine years, after which the pupil takes his degree of Bachelor of Arts or Bachelor of Science, and proceeds to study specially for his profession. The religious instruction of Roman Catholic boys is given by chaplains, under the inspection of the bishop of the diocese. Protestant and Jewish boys receive the instruction of their own communions. There are no complaints of improper interference and proselytism. As for results, the proficiency in Greek seems decidedly below that of the English. But the best Latin scholars are equal to the best English, and the average Latin scholars are far above the average English. In arithmetic, mathematics, natural science, and native literature, the English are much inferior. There are two main causes for this superiority; the careful preparation of the teachers, and the system of supervision. The best teachers come from the great normal school at Paris, whose pupils are selected by competition from those scholars at the *lycées* who wish to enter the scholastic profession. Then all the *lycées* follow a given curriculum of lessons, and every lesson of every hour throughout all the schools is prescribed by the central government. Concerning this unique system of organization the following anecdote is related. An English-

man interested in educational questions was calling on the Minister of Public Instruction. The latter, in order to impress his visitor, took out his watch, and mentioning the exact time, observed that at that moment every boy in France in such a division was translating the twenty-fifth line of the second book of the Iliad. To the ordinary English mind, with its fondness for freedom and individuality, such mechanical precision appears simply intolerable. Then the professors who have undertaken a definite task are kept to that task, and no other, besides which, they are freed from every duty but that of giving the lessons. The moral training and discipline of the scholars are entrusted to different officers, while an inferior set of men, the *maîtres d'étude*, see that the pupils learn their lessons. Under such a system, the idleness in which English boys often indulge is quite impossible, but other and graver evils arise. The *maîtres d'étude* are generally despised, and they are said to cause much mischief and corruption among the boys. A chronic state of suppressed rebellion is said to be not an uncommon condition of a French *lycée*. Altogether, in spite of the apparent perfection of the French system, if the dulness of the unchanging routine, the length of the school hours, and the absence of individual liberty be borne in mind, an English boy may feel thankful, in spite of all the educational shortcomings of England, that he was born on this side of the Straits of Dover.

The Prussian school system, like the French, has two chief grades —the elementary, and then the *Gymnasien* and the *Realschulen*. The primary schools are cheap and good, and attendance is really compulsory, not nominally so, as in New England. The *Gymnasien* are more like our best classical schools than any others in the world. There is the same preponderance of classics, nearly the same sort of teaching, and much the same results. The boys learn their lessons, and bring them prepared to school. In France the work is chiefly written, and the masters do the most of it. In Prussia the work is chiefly oral, and the boys do the most of it. There are no *maîtres d'études*; the same masters do the whole of the work. The Prussians attach little importance to normal schools, but teachers are obliged to pass a stringent examination in the subjects which they propose to teach. The *Realschulen* correspond rather to our commercial schools. They are divided into three grades, of which the highest teaches no Greek, and comparatively little Latin; the time thus gained being devoted to mathematics, natural science, and modern languages. In the second grade, Latin is not obligatory; while in the third grade, the course is still shorter and less complete. These *Realschulen* are intended to prepare boys for business and for the Government service. But though unquestionably successful, they do not educate so many boys as the *Gymnasien*, which strenuously avoid all practical or professional teaching. There are 172 *Gymnasien*, with 45,403 scholars; there are only 83 *Realschulen*, with 20,732 scholars. With reference to religion, all schools must be either Catholic, or Protestant, or mixed; but all public schools are open to scholars of all creeds, and parents can withdraw their children from religious instruction if it is not of the creed to which they belong. The schools are supported by endowments and fees. The fees are very low, and the salaries of

course correspond. The rector of the principal school in Prussia has 300*l.* a year and a house. To Englishmen this may appear a poor pittance for such a position; but, as Mr. Matthew Arnold wisely remarks, "He can do all that he wants to do, and all that anybody about him does; and this is wealth." There are also many private schools, which are only subject to two restrictions: they must have certificated teachers, and they are liable to Government inspection. The public schools are governed by a happy combination of local and central authorities.

The Prussian system appears to be the most complete and perfectly adapted to its people of all that now exist. It does not neglect high cultivation, as in America, or middle class cultivation, as in England; nor does it sacrifice everything to intellectual proficiency, as in France. It is more bureaucratic in form than the English would like; but it is not such a piece of governmental machinery as the French system. The result is an unrivalled body of teachers, schools meeting every possible need of every class, and a highly cultivated people.

Turning to Switzerland, it will be sufficient to point out the work done for education in the Canton Zurich out of its own revenues. A territory, with the population of Leicestershire, maintains a university, a veterinary school, a school of agriculture, two great classical schools, two great *real* schools, a normal school for teachers, 57 secondary schools, and 365 primary schools; and many of these are among the best of their kind in Europe. The higher intellectual cultivation is wanting, but the people of Zurich have succeeded in what they have tried to do, perhaps even better than France and Prussia.

A survey of these various systems leads to the following conclusions:—1. The value of popular and parental sympathy. Before all things, the wishes of the parents and the people at large must be met. The people, perhaps, cannot give guidance, but they can give life, which is even more valuable. With the people, what is done may be imperfect; without the people, little or nothing will be done. 2. Classics are everywhere regarded as the basis of the highest education, but they must make room for other studies by their side; and there is also an evident demand for schools of an altogether different type, like the *Realschulen* of Prussia, or the schools of industry of Switzerland. 3. Liberty of conscience is everywhere respected. 4. The value of thorough organization is clearly demonstrated. The Scotch system, for instance, would gain much by a co-ordination of the schools with each other and with the universities, and by a regular system of examinations. In England the problem of organization is more complicated. The schools are drawn in different directions by the demands of the universities, by the demands of the parents, by public opinion, by antiquated regulations; and since much of this medley cannot be destroyed, it must be reorganized in such a way as to make the best use of that which exists, and add more by the side of it.

Much instruction may be derived from a careful examination of the school systems of other countries; but it would be useless to attempt to reproduce exact copies of any of them in England. We neither possess American restlessness and energy, nor the long training of the Scotch, nor the French aptitude for organization, nor the Prussian

belief in the value of culture. But it is evident that we require a sufficient supply of schools of the three grades already spoken of, and of these, schools of the third grade are most pressingly needed. In this department the endowed schools fail most signally, while nothing else takes their place. If a private schoolmaster is successful in a school of this sort, his success at once attracts boys of a higher social *status*, so that his school rises to the second or the first grade. The results of the late Exhibition at Paris seem to prove that British workmen had not advanced so rapidly as Continental workmen; and their deficiency is attributed not merely to the want of technical education, but to the absence of general intelligence. The Commissioners recommend the establishment of schools corresponding to the *Bürgerschulen* of Prussia, where the sons of artizans, small shopkeepers, and tenant farmers could obtain a sound elementary education up to the age of fourteen. The schools should consist of two divisions, with an examination between them. Great freedom in the use of methods of instruction should be permitted to the masters, but the subjects of examination should be fixed by the governors. To prevent such a school from invading the province of a higher grade, all boys should be required to quit at the age of fourteen, a rule already enforced at many of the old foundations. Supposing that such schools are erected, kept in repair, warmed, and supplied with all needful apparatus from endowments, the Commissioners estimate the cost of thoroughly efficient teaching at an average of 4*l.* a year per head; and they believe that the majority of parents of the classes above named would willingly pay this price if they were really satisfied with the teaching imparted in exchange.

The want of schools of the second grade, where the pupil's scholastic career is to terminate at sixteen, is not much less urgent. In these schools, which would correspond to the Prussian *Realschulen*, Greek might be omitted, but Latin, modern languages, practical mathematics and mechanics, and English literature, should be sedulously taught. The fees in day schools of this grade might vary from 6*l.* to 12*l.*; for boarders, including education, from 30*l.* to 40*l.*

Less need be said of the establishment of new schools of the first grade. The Commissioners recommend that some of them should be semi-classical, where Greek should be omitted, in exchange for more modern languages, more mathematics, or more natural science. But such schools would not be successful without the co-operation of the universities. Moreover, preparatory schools should be established in connexion with each grade.

It may naturally be asked here, how it is that the old grammar-schools have lost so much of their former utility? Until comparatively recent times, education was brought by the grammar-school almost to every householder's door; all classes mingled under its roof, and our annals are full of the memoirs of men of humble birth who rose to subsequent eminence from the education received at these seminaries. Their loss of usefulness is not simply attributable to the apathy of trustees, and the incompetence of teachers; these evils are rather a symptom than a cause. The truth is, that the days are gone by when a comparatively simple and uniform education will suit all

classes alike. Education has become varied and complex; people require an education adapted to their own special ends, and will not accept that which was before provided for everybody. The upper classes demand large schools, and free intercourse with many boys, they are no longer content to let their children grow up with no school companions but their immediate neighbours. The middle classes cease to value Latin and Greek, when Latin and Greek no longer means association with the sons of the gentry. So the grammar schools either sink gradually below the level even of National schools, or else they maintain their classical teaching and lose their scholars. And however good a master may be, he cannot make a really good school without a tolerable number of pupils. But the old glory of the grammar-schools—namely, their power of leading boys of the humblest origin, if only possessed of ability and industry, to positions of the highest eminence—need not be entirely lost. Money will always be needed to pay for the passage of poor but promising boys from schools of a lower to schools of a higher grade, and part of the endowments which are now useless, or even worse than useless, might be employed in creating exhibitions for this purpose.

It is calculated that within the scope of the Commissioners' inquiry —that is, excluding the labouring classes and the richer gentry—the total number of boys in England and Wales amounts to about 255,000; and in order to bring the best secondary education within the reach of parents, there should be provision ultimately in towns for not less than sixteen boys per thousand of population. One half of the whole assumed demand should be assigned to scholars of the third grade.

Thus far the object of this paper has been to discover the kinds of education which appear to be desirable and attainable, it next becomes necessary to take a rapid survey of the present state of schools intended for secondary education. First, with reference to the supply of schools. The upper classes—who are for the most part beyond the scope of this inquiry—are well supplied with public boarding schools, and scantily supplied with public day schools; for the upper section of the middle classes there is a smaller supply of public boarding schools, and a very insufficient supply of public day schools; for the lower section of the middle class, and the upper section of the artizans, there is almost no supply of public boarding schools, and a very poor supply of public day schools giving an education higher than the National schools. Moreover, there is scarcely a single public school of the first grade where a good education, resting mainly on science and only partially on classics, can be obtained; there are no day schools of the second grade which teach non-classical subjects with the vigour and effectiveness of the German *Realschulen*, while for the third grade there is very little public education, excepting in the upper class of a National or British school.

Schools may be classed under three main divisions, namely:—Endowed Schools, Private Schools, and Proprietary Schools. There are about 3000 endowed schools in England and Wales, of very different degrees of importance, and presenting every variety of excellence or badness. They are thickly scattered over the surface of the country, and few places of more than 3000 inhabitants are without an endowed school.

The Commissioners have reported on about one-fourth of these schools, namely, on those which were intended to give, or which now actually give, a higher education than that given in the National or British schools. 36,874 boys are educated in these schools. Of these 9,279 are boarders, and 27,595 day scholars. Most of these schools possess a school-house, a master's house, and an annual income. Their incomes vary greatly, from Christ's Hospital with its 42,000*l.* a year, to a mere rent-charge of 5*l.* The social rank of the scholars is very various. In a few almost all ranks met; but in the great majority, either the higher or lower ranks are found, but not both together. The unwillingness of one class to mingle with another varies in intensity in different parts of the country; on the whole, it appears stronger in the South than in the North of England. It must be remembered that few of these schools are less than two centuries old, and that many of them were established before the revival of letters, the upgrowth of science, and the reformation of religion. In too many cases the letter of the founders' instructions has been followed instead of the spirit, and the result is that they are not such schools as those founders intended, nor such as the inhabitants of the locality would now most desire. They exhibit neither the will of the dead for their time, nor the will of the living for the present time. Two special circumstances, moreover, have recently contributed to lessen their usefulness. The British and National Schools, under Government aid, have drawn away many of their scholars; while the improved means of travelling has rendered distant schools accessible to children who formerly would necessarily have gone to the school of their own town or village.

An examination of the intentions of the various founders shows that the grammar-schools were intended to give at least a higher than rudimentary education, and especially to prepare fit boys for the universities. How many of the 700 endowed grammar-schools in any effectual way fulfil this intention? Here is the reply. 550 endowed grammar-schools are not sending any boys to the universities; 83 are only sending an average of $1\frac{1}{3}$ each; not more than 80 or 90 can properly be considered university schools, and less than 40 of these are sending 3 students every year. Again, it may be asked how far the founders' intentions are fulfilled by the subjects taught in these schools? 43 per cent. of the whole number teach neither Latin nor Greek, and very few of these give any effective instruction in mathematics, French, or natural science. The great majority give no better education than an ordinary National school, and a great number do not give one so good. 23 per cent. are semi-classical, that is, they teach no Greek, or the barest rudiments of Greek; the remainder (except 50 schools which are in abeyance) are described as classical schools. And even of these, the proportions which send scholars to the universities are very small.

The reports of the Assistant-Commissioners afford a clear statement of the general character of the instruction received. In the West Riding of Yorkshire, the classical teaching of the grammar-schools may, on the whole, be pronounced delusive and unfruitful. It is so taught in the majority of cases that it literally comes to

nothing. It furnishes the pretext for the neglect of all other useful learning, and is the indirect means of keeping down the general level of education in almost every small town which is so unfortunate as to possess an endowment. In Lancashire, the practical spirit of the people has to some extent substituted a commercial education in lieu of the old classical system. A good deal of time is given to arithmetic, but the teaching is very clumsy and unscientific. French and mathematics are very partially taught; natural science is scarcely taught at all; writing is good; spelling only tolerable; and geography unsatisfactory. In the West Midland District, including part of Wales, the Assistant-Commissioners set the following two questions in a paper:—1. Translate into English, *Epistolam quam misi vidit.* 2. Translate into Latin, "He was a good boy." 236 boys from "well-managed classical grammar-schools" gave answers to these questions. Of these boys 130 were over 13, and 106 below 13. Of the former 59 per cent., of the latter only 12 per cent., answered both questions correctly. But the result in private schools was still worse, being respectively 31 and 7 per cent. In Staffordshire and Warwickshire only 97 boys in all the schools examined could translate decently an ordinary passage of Cicero or Virgil, though any amount of time, and an unlimited use of the dictionary was allowed them. The knowledge of French, mathematics, and English literature was no better. The county of Northumberland is almost a blank in respect of all education which can be regarded as preparatory to the university. In Norfolk, Latin, so far as it went, was in the endowed schools generally satisfactory; but hardly any boy, except at Norwich Grammar-school, could possibly have been set to write five consecutive lines of Latin not taken from an exercise book. In Surrey and Sussex most of the grammar-schools have descended from the highest to the meanest kinds of teaching, and at some the boys are lucky if they learn to read and write. In the metropolis a very indifferent account is given of the third-grade endowed schools. Reading, writing, and arithmetic, were all bad. The general impression derived from all these reports is very unsatisfactory, nor are those of the private schools, which are fairly comparable with the grammar-schools, any better than the grammar-schools. In commercial arithmetic and writing, they have a slight advantage; in Latin, and in the higher subjects generally, they are beaten by the grammar-schools. With reference to religious instruction, it may be simply observed that the requirements that all should receive such instruction is not often enforced so as to exclude scholars, but there are some instances of hardship, which render the enforcement of a Conscience clause advisable. Indiscriminate gratuitous education is strongly condemned by the Commissioners. To be really successful, a school should be large, and should have an able master, and very few endowments will suffice, without the addition of fees, to secure the services of a man of ability. And even a large endowment is found to do much less good than a small endowment supplemented by fees. At Bedford, where 3000*l.* a year is spent on gratuitous education, the results produced are inferior to those of the City of London School, which has only 900*l.* a year, aided by fees. In cases where

some boys pay and where others do not, much mischief is produced by the invidious distinctions maintained between the two classes. The free boys are taught in different rooms, are forbidden to use the playground, and are sometimes, on account of their quaint dresses, regarded as objects of scorn by the rest of the school. In this manner the school becomes dislocated; whereas all scholars ought to be treated alike by the master.

Passing over several collateral topics, a few words may be said on the subject of restricted exhibitions. A man cannot easily bequeath money more mischievously than by leaving it for the purpose of promoting the education of persons bearing some special name, or born in some particular parish. Such exhibitions draw boys from good schools to bad; they are taken by unfit candidates, or they are not filled up at all. Blackrod Grammar-school has an exhibition of 65*l.* a year, tenable for five years. The children attending the school are coal-miners' children, who come to it from the National school for the sake of a clothing charity, and leave school altogether for the pit at eleven or twelve years of age. The present holder of the exhibition comes from Bolton by rail, six or eight miles, every day, in order to be taught, or rather to be physically present, in Blackrod School, merely for the sake of this 65*l.* A gentleman, in 1722, left a sum of money for maintaining at school, and at Oxford, a youth chosen out of certain parishes in Gloucestershire. Nobody was so elected till 1860. The youth thus elected received during seven years 900*l.*, and at last, having failed to pass his Responsions, was obliged to remove his name from the college. Many such exhibitions have not been filled up for years, for want of candidates who can comply with the founders' instructions.

What is the best mode of correcting these abuses, and of fulfilling the real intentions of the founders? The first remedy is to fix the grade of each particular school. Except in a very large establishment, elementary and advanced instruction cannot be simultaneously carried on with any prospect of success; some boys are sure to be sacrificed for the sake of others; the staff of teachers is not sufficient for the work. The next remedy is to improve the means of access to the schools. Many grammar-schools are now languishing either because they teach that which parents do not value, or because they teach badly that which they do value. There is a great want of preparatory schools of the third grade for children who are above the rank of labourers. To get for his children a really good education at the lowest cost price, is a boon which would be of the highest value to a farmer, and is the only boon for which he asks, if he asks at all. Small farmers and tradesmen do not want charity, but an education guaranteed to be good and cheap. At present they are in some counties worse off than the labourers, whose children are being educated at the Government schools. In Norfolk, they do not care that their children should mix with those of the labourers; they fear undesirable acquaintances, or that their boys may be found duller than the labourers' boys,—an awkward fact to recollect when the said boy comes to manage the farm. So they keep their children at home till eleven years old, under a governess, who is too frequently ill-paid and ill-educated. When the boy goes to a master, he is scarcely able

to read and write, and quite unable to spell and cipher. Farmers' sons at the age of ten are invariably more ignorant and more backward than the children of their labourers. Some of the farmers feel this state of things keenly. "I pay not only for my own sons' but for my labourers' sons' education," said a farmer, "for they receive the benefit of the Government grant out of the taxes which I pay." It may be observed that the objection of farmers to associate with labourers does not generally exist throughout the northern counties, nor in some other parts of the country, and it is possible, under certain arrangements, to make the National schools the common day-school for all classes in a given district. A striking instance of this is afforded by Bunbury, in Cheshire. Here there was an old mismanaged free grammar-school, with an income of 50*l.* a year. The schoolmaster kept a public house, and twice when the Government inspector called by appointment he could find neither master nor scholars. The school was remodelled in 1854, a trained and certificated master engaged, fees were demanded, the Privy Council grant and inspection obtained, and the result is that for an expenditure of 240*l.* a year, 110 scholars are receiving an excellent English education. The fees are various, according to the means of the parents, and include all classes, from labourers up to a boy who is heir to 10,000*l.* a year. An instance like this seems to solve several difficult problems. It shews that a lifeless and mischievous grammar-school may be converted into a valuable National school, and that parents do not trouble themselves about class-distinctions if they can get a good and cheap education for their boys. It may be added that this school at Bunbury, and others of the same kind, have all been started by clergymen of the Church of England, and that dissenters freely send their children to them, and allow them to receive scriptural instruction. This proves that if only a good education be offered, the "religious difficulty" sinks into insignificance.

It is worth noting here the distances from which boys can conveniently come to attend day schools. Both in town and country the area embraced by an *attractive* day school is probably larger than many persons suppose. The first ten boys of the City of London School travel, on an average, seven miles out and seven miles home; the ten lowest boys in the Stationers' School travelled five and a half miles each way. Some metropolitan schoolboys travel more than forty miles a day. In country places, four or five miles each way is not an uncommon distance for boys to walk. Near Kendal, a girl of eleven walked five miles and back. At Stradbroke, twenty-three out of forty pupils were farmers' sons, who came, some on foot, some on ponies and donkeys.

Various plans are discussed by the Commissioners by which the cost of boarding may be reduced in cases where the day school is beyond reach. In Scotland, and in some parts of Wales, boys board themselves, and attend the school as day scholars. Ystrad Meurig affords an instance of primitive simplicity. Three boys paid 2*s.* a week each for the use of one room, which was sitting-room and bedroom. For this sum they got, besides lodging, a supply of milk, and sometimes flummery, and had their meal, which they provided for

themselves, cooked for them at the kitchen fire. It is doubtful whether the majority of English parents would approve of this juvenile independence. In more thickly-peopled places boys would be exposed to sundry temptations, and there would be no one to see that lessons were properly prepared. The Commissioners recommend the Hostel system, already adopted by many proprietary colleges, and by the newly established county schools, where the Trustees keep the boarding houses instead of leaving boarders to masters or dames. At three such schools the charge for boarding on this principle was 26*l*., 28*l*., and 22*l*. respectively; the charge for instruction being 5*l*., 8*l*., and 6*l*. The latter, however, required to be supplemented by the endowment; the boarding-tariff left a small profit.

It remains to consider the sources whence funds may be obtained for providing good third-grade schools, and for erecting exhibitions for the encouragement of deserving scholars. There are four classes of endowments available for this purpose. 1. Endowments for grammar and other secondary education, which have ceased to be so applied. 2. Endowments for primary education, now rendered unnecessary on account of the schools aided by Government. In both these cases, the schools enjoying the endowment, as they are at present constituted, do more harm than good. 3. Endowments for clothing scholars. These endowments practically relieve parents, not of a destitute class, at the pleasure of irresponsible trustees, of all cost for the board and clothing of some of their children, and their effect is decidedly injurious. 4. Endowments for purposes unconnected with schools which are now useless or harmful. The aggregate of charity applicable to *doles* alone, amounts to 120,000*l*. a year, and these doles, for the most part, simply encourage improvidence and intemperance. In one small village, 450*l*. a year is thus distributed among the poor. In Worcester an immense sum of money is spent in charities. Part of this is distributed in amounts of 2*s*. a head on a certain day. On one occasion the payment was made in florins. Next morning the distributors sent round to the public houses, and got the florins back again to serve for next year. Extra waiters are put on at the gin-shops in some places as the dole-epoch draws near. Among other obsolete charities may be mentioned apprentice-fees. The system of apprenticing is in most trades extinct, and it is said that when the fee is taken it is divided, by an underhand arrangement, between the parent and the master to whom the boy is apprenticed. Marriage portions for girls might be far more usefully employed in promoting the higher education of girls. Large sums left for the relief of poor prisoners for debt are now unused, owing to the alteration of the law. Besides this, there are loan funds, charities for objects that have failed altogether, and charities for general public purposes, such as making roads and bridges, the application of which to educational objects, as roads and bridges are now provided out of the town and county rates, would equally relieve the ratepayers.

The position of the schoolmaster, who may be justly regarded as the mainspring of the school machinery, next deserves consideration. The Commissioners are decidedly of opinion that he should not have a permanent office. Any tenure, which legally or practically makes

him irresponsible, does injustice to the school. Numerous glaring examples of indifferent, incompetent, and infirm masters are cited. Various remedies have been provided for these evils. Power has been given to dismiss the master in special cases, by Act of Parliament, or a master, on being appointed, has been required to give a bond to resign on notice being given, or the freehold tenure has been evaded by appointing the incumbent of the parish to the mastership of the schools, so that the working master merely becomes his deputy. This last arrangement, of course, gives the incumbent almost absolute power over the school. "No constitution can work better than that of Liverpool College," says Dr. Howson, the Principal. "I am absolutely removable at a moment by the directors, and all the masters are removable at a moment by me." More, however, is needed than a power of dismissal; the evils above spoken of are more easily prevented than cured. If a fit master be chosen, if he be entrusted with ample powers of administration, and if his salary be made mainly dependent on his success, it would rarely be necessary to dismiss him. With reference to the qualifications of masters, the rule laid down by the founders of many endowed schools, that the master must be a graduate or a clergyman, often works injuriously. Where merely elementary instruction is required, as happens in many village grammar-schools, a university graduate and a clergyman rarely devotes himself heartily to the work. Moreover, the limitation of masterships to clergymen is offensive to those of the inhabitants who are nonconformists, and it prevents nonconformist teachers, otherwise suitable, from obtaining such posts. With reference to the relative merits and defects of graduates, and of certificated, or trained and certificated teachers, it may be remarked, that for second grade schools, a class of men is much needed, who shall have more knowledge than all but the very ablest of the certificated teachers, and more skill and ability than the inferior graduates. Men from the Scottish universities best supply this want at present, and are said to be better prepared for their work and better qualified than the ordinary teachers of middle schools in England. The certificated teachers are unfavourably contrasted with the best Northumberland teachers. "They were fond," says Mr. Hammond, "of hard technical words and unintelligible rules, whereas the best oral teachers employed simple terms and homely illustrations." Moreover, they rarely possess those social advantages which would enable them to move freely in the society of graduates. French and German, especially, will never be properly taught unless the teachers are gentlemen, scholars, and thoroughly acquainted with English. Englishmen who have lived abroad and have had a superior education, would probably make the best grammar-school teachers of modern languages. As for the salary of the head master, most modern schemes give him a small fixed salary, and a proportion of capitation fees, but the Commissioners incline to the belief that he should be entirely dependent on the latter source. At Liverpool College all the masters are paid by shares in the fees, and the rise in the prosperity of the college has raised the salaries from 15*s.* to 23*s.* per share. From endowments and day scholars' fees, head masters may be reckoned on the average to receive, in large

towns, 320*l.* per annum; in small towns, 140*l.*; in country grammar-schools, 75*l.*, besides in most cases a house to live in. At Birmingham, the head master receives from this source nearly 2000*l.* a-year. In most schools, therefore, the additional profits of boarders become necessary, but no profit is obtainable unless the boarders are pretty numerous.

All endowed schools are provided with some person or persons in whom is vested the right of making appointments, and of managing the property of the school. These trustees may be conveniently classed under three heads, according as these powers are vested in—1. A body specially created for the administration of the school, or of the charity of which it forms a part. 2. A society of persons already associated for other purposes. 3. One or two persons, representatives of the founders, either as heirs or proprietors of certain estates. The first of these classes is much the most numerous, but the boards vary so much in their constitution and character, that it is difficult to give any general description of them. It is satisfactory to learn, that at the present time there is little, if any, evidence of malversation on the part of trustees, but there is much neglect. In many instances, a long interval of years elapses between their meetings. Sufficient reasons can be given for this apathy. The trustees are non-resident gentlemen, who do not use the school for their own sons; or they are farmers who know little about education; or they are tradesmen, who think a grammar-school education a waste of time. If they wish to reform the school, they are confronted by a master whom they cannot oust, although he may thwart all their plans. Then they know by experience that inaction is safer than action. Action often leads to a breach of trust, and involves them in litigation. They prefer, therefore, caution and quiet. The second class of trustees are either municipal corporations, city companies, masters and fellows of colleges, or deans and chapters of cathedrals. The schools connected with municipal corporations are, on the whole, well managed. Such are the City of London School, regarded by the Assistant-Commissioner as a model: Lancaster, Preston, and Ipswich. Twenty-seven schools belong to city companies, ten or twelve of which are really useful, though they do not do so much good as they ought with their rich endowments. Of the remainder, some waste a great deal of money, and some would not be missed if they did not exist at all. A comparison between these companies' schools, and those belonging to municipal corporations shows the following results. The companies' schools cost five times as much to maintain, they educate only two-thirds as many scholars, and produce only three-fourths as many university students. Colleges, in spite of their wealth and learning, are found by experience to be bad trustees. Most of their schools are in a discreditable condition. The scholars in the Cathedral schools are described as being well taught, though the standard of instruction is not so high as might be expected. Concerning trustees in general, the Commissioners arrive at the following conclusions. They should be specially appointed, they should reside on the spot, and have a natural interest in the school, they should have no pecuniary interest in the estates, and the selection of free scholars should be tested by

examination. In addition to this, the schools, instead of remaining isolated units, require to be reorganized and connected together, while the trustees themselves would derive guidance and stimulus from the occasional visits of official inspectors.

In respect of school sites and buildings, there is much room for improvement. Some places, such as Birmingham, Leeds, Sherborne, Ipswich, and Tunbridge, are provided with large, stately, and commodious buildings; others have nothing better than mere roadside huts. A good playground is of vast importance in promoting that *esprit de corps*, and moral tone, which is so much valued by thoughtful educators at the present time. Here are some specimens of faulty schools. At Portsmouth, the school is next door to a public-house, and what is said there can be heard through the partition in the master's sitting-room; at Dudley, the school-room is ill-ventilated and approached from a disreputable street; at Evesham, the buildings are bad, and the playground bordered by a slaughter-house and by mean cottages, occupied by persons whose noisy and drunken talk the boys cannot but overhear; at Burton-on-Trent, the school-room is so low and damp that sixteen boys have been taken from the school within three years, on account of the situation. Mr. Bryce sums up the faults of the Lancashire schools thus: "They are ugly without and dingy within, they are dirty and ill-ventilated; in winter the master is often fried while the pupils are frozen; the desks and benches are old, clumsy, and inconvenient. Speaking of the metropolitan district, Mr. Fearon says: "A photograph of the two buildings would show why the grammar-school is unpopular, and the National school full. The one is bright and cheerful, with its principal schoolroom well warmed, lighted, and ventilated; its class-rooms, with their galleries, lobbies, playground, and offices all arranged according to the best modern system. The other is a decayed structure, looking like a compound of an old-fashioned dwelling-house and a hen-roost. The walls are bare and dirty, and unprovided with maps and plans. In short, in furniture and apparatus, as well as in the shape and construction of the buildings, almost every one of these schools is far below the condition of a National school. To a reflective employer of labour, of the humbler sort, it must be most galling to think that his workmen's boys and girls are getting a better education than he can provide for his own."

It remains now to inquire how far the deficiencies of the grammar-schools are supplied by the private and proprietary schools. A few of the private schools of the first grade, are said to be excellent, and many improvements have been effected in those of the second grade; still, the condition of a number of these schools is far from satisfactory. As the scale of price declines, a rapid deterioration takes place, and many of the third grade private schools are quite unequal to the task they have undertaken. "Their teaching," says Mr. Bryce, "even in the suburbs of Liverpool and Manchester, is incomparably worse than that of an average National school, yet they are twice as costly." Another witness states that it is the schools just above the National and British schools that need most reform. "I shudder at the recollection of some of them." Another witness shows that boys from cheap private schools are more backward than National schoolboys,

and that "it will never do to leave middle class education to private adventure." The teaching in secondary private schools is distinctly more *modern* in its cast than that of the grammar-schools, but mental discipline is much neglected. Parents demand practical teaching, which will enable their boys speedily to obtain situations. Thus everything else is frequently sacrificed to penmanship and commercial arithmetic. The tyranny of Greek and Latin is much complained of, but nothing which will give tenacity and clearness to the scholar's mind is supplied in lieu of the classics. And even the commercial training, narrow and defective as it is, appears to be as well given in the average grammar-schools as in the private schools.

Parents are apt to fancy that their children will receive more "individual" attention at a small school than at a large one, but this expectation generally proves fallacious; and the average level of the boys at these small cheap schools is below that of the worst boys in the larger grammar-schools. Ignorant parents sometimes interfere injudiciously with their children's studies: "one sends word that his son must not learn Latin as it will be of no use to him," says Mr. Fitch. "Another desires that his son may learn Greek, because he may be brought into relations with Mediterranean merchants." The accommodation in the dearer schools is very good, in the cheaper schools exceedingly defective. "No words are too strong," says Mr. Green, "to express the badness of the schoolroom at most of the cheap academies." Many of the head masters of private schools are very able men, but many more are ignorant pretenders, and parents have no means of testing their ability. The assistant masters are rarely good, they are generally ill paid, and they have little prospect of rising to anything better; their work is very hard and very irksome, and they get very little sympathy. Severe things are said of the *maîtres d'étude* in France; severer things still might be said of the private school assistant masters in England. Startling revelations are made by the head masters, of assistants discovered to be drunkards, yet retained, because there was no certainty of getting better; of assistants obliged to decamp suddenly through some disgrace, usually for debt; of assistants, whose only principle was to do as little work as they could.

In comparing the relative advantages of private schools and grammar-schools, it may be said that the former are more accessible to enterprise and improvement, while the latter have a public position and are less affected by injudicious parental interference. It is well worth while to note the contrast between the mischief done in England by unintelligent and the good done in Scotland by intelligent, parental interference. It may be traced in England to two causes; first, to the loss of confidence in the grammar-schools, and, secondly, to the deficient education of the parents, especially of the mothers. If the grammar-schools had, fifty years ago, been adapted to modern needs, parents would probably have willingly left the education of their children in the hands of the school authorities. And it should not be forgotten that though the Scotch father has a large latitude in guiding the education of his son, he cannot prescribe what lessons shall be given. He can only choose out of the list drawn up by the

school authorities. In spite of their serious faults, the extinction of private schools is by no means to be desired. Their rivalry acts as a wholesome stimulus to the endowed schools; they offer a field for men of peculiar views, who though possibly prejudiced and narrowminded, achieve success through their enthusiasm, and they suit boys whose intellect needs "individual" training. At present there are no means of distinguishing good schools and good masters from bad ones, and as a private school has no recognized position, superior men will not accept situations on its staff. As a remedy for these defects a voluntary system is recommended of examination for masters and inspection for schools. The best private schools would, no doubt, readily accept such an offer, as it would place an official stamp on their advantages, and the inferior schools would gradually be compelled by self-interest to follow their example.

Concerning proprietary schools, which are nearly all of recent origin, little need be said. They are too often based on distinctions of rank, and do not therefore deserve to be classed with public schools, but their educational character stands very high.

Parents often show much apathy with regard to the education of their boys, but they are still more indifferent concerning the education of their girls. Girls' education does not possess such a distinct and immediate money value, and besides this, there is a widespread prejudice that girls are less capable of mental cultivation than boys, and also that men prefer showy accomplishments in their wives rather than solid attainments.

These prejudices are not altogether unnatural. Parents will always believe that the gentler graces and winning qualities of character will be their daughters' best passports to marriage, and will always expect the husband to be the bread-winner. "The ideal presented to a young girl," says an able writer, Miss Davies, "is to be amiable, inoffensive, always ready to give pleasure, and to be pleased." But the more thoughtful part of the community are beginning to acknowledge that in order to be a real helpmate to her husband, both in the conduct of his business, and in the most serious branches of his domestic affairs, a girl requires a more intellectual training than she often has the opportunity of obtaining at present. And as the women in a mercantile community have far more leisure than the men, they are mainly responsible for the maintenance of a higher and more cultivated tone in society.

The general deficiency of girls' education is thus indicated by the concurrence of numerous witnesses. Want of thoroughness and foundation; want of system; slovenliness and showy superficiality; inattention to rudiments; undue time given to accomplishments, and those not taught intelligently or scientifically; and, lastly, want of organization.

The "religious difficulty" is even less felt in girls' than in boys' schools. As regards religious knowledge, the evidence is favourable, girls do better than boys, and show proof of better home training. "Concerning other branches," says Mr. Giffard, "girls spell, read, write from dictation, and master the facts of history and geography better than boys; but translate, analyse, and parse worse, are not so

quick and accurate in arithmetic, algebra, and Euclid, and are less able to deal with themes and general questions." Physical science has hitherto been taught so imperfectly that the results are not very encouraging. Mathematics are not taught *mathematically*. But in favourable circumstances, as at Queen's College, girls who have any aptitude for the subject are said to make rapid progress. Greek is so little taught that it need not be noticed; Latin is strongly recommended as a means of mental culture and for obtaining mastery over grammar; indeed, Mr. Fearon regards first-rate instruction in Latin as an indispensable stepping-stone to modern languages in ordinary girls' schools of the first grade. At present, girls' attainments in Latin are not highly spoken of. Girls succeed in French quite as well as boys, and, on the whole, are said to have more aptitude for it, but there is a great want of soundness and accuracy. With regard to music, instrumental music is unintelligently taught, and singing more neglected than in boys' schools. One of the Assistant-Commissioners, Mr. Bompas, condemns the pianoforte as an engine of school-teaching, pointing out the undue consumption of time, the impossibility of simultaneous teaching, its expensiveness, and the embarrassment it causes in the social arrangements.

The mental capacity for learning is proved to be the same in the two sexes. This is the universal belief throughout the United States, and an examination of a really efficient girls' school, such as the Ladies' College at Cheltenham, leads to the same conclusion. Still more convincing are the results of the Cambridge Local Examinations, at which boys and girls have been tested with the same papers. The report of 1867 decidedly favours the girls rather than the boys. "In religious knowledge, and in Shakespeare, the girls excelled the boys. In French the girls translate with far greater spirit than the boys, and are equally superior in handwriting and spelling." The characteristic mental differences between the sexes is interestingly indicated in the following passage:—"The best boys wrote with vigour and precision, the best girls with ease and vivacity. The boys were, for the most part, content to retail information derived from books, or to describe the processes of some branch of manufacture; the girls were eager to express their own views, and were most successful when they endeavoured to trace their own intellectual phases, or to depict the trifling incidents of everyday life." Girls are no better off than boys in the deficiencies of their school buildings and teachers, but as the facts are radically the same as in boys' schools they need not be enumerated here. Very few endowments are at present applicable to the education of girls, and the Commissioners strongly recommend that, in a future re-arrangement of educational funds, girls should have their legitimate share.

The seventh and concluding chapter of the Report contains the Recommendations of the Commissioners. The first section treats of the measures suggested for the improvement of endowed schools. Regard must be paid to the spirit rather than to the letter of founders' wills in carrying out these reforms. The main object of the founders was to promote education, and this object must be kept steadily in view. The Commissioners, therefore, recommend the organization

of the existing grammar-schools into a harmonious system, and their conversion into schools of the first, second, and third grade, according to the wants of the neighbourhood in which the endowment is situated. The funds at the disposal of the trustees should first be applied to the maintenance and repair of buildings, indiscriminate gratuitous instruction should be abolished, gratuitous instruction only given as a reward of merit, and open competition employed as much as possible in the selection of exhibitioners. The master should be liable to dismissal by the trustees, and fixed salaries abolished. Normal schools for the training of teachers are regarded as unadvisable, but certificates and testimonials should be required from persons seeking headmasterships. Useless, mischievous, and obsolete charities should be declared by Parliament convertible to purposes of education.

The following machinery is suggested for carrying these recommendations into effect. The existing Charity Commission, which has already gained much experience in dealing with schools, should be enlarged by the addition of persons specially acquainted with educational matters, and should be represented in Parliament by a member of the Government. The duties of the Commission would be to approve or reject schemes for the re-settlement of educational trusts, and, if approved, to submit such schemes to Parliament; to appoint school inspectors and auditors of endowment; and to decide whether charities alleged to be useless should be converted to educational purposes. This central power would need to be supplemented by local authorities. It is recommended that an official District Commissioner should be appointed for each of the Registrar-General's divisions, and that other unpaid District Commissioners appointed by the Crown should be associated with him. It is conceded that Boards of more popular origin would probably be more energetic, and such Boards might be formed from the Chairmen of the Boards of Guardians. With regard to trustees, the inefficient trustees should be eliminated, and their places supplied by persons elected by the householders of the parish, for a limited term. In every case the official District Commissioner should be an *ex-officio* member of the Board of Governors. Examinations should be conducted by means of a council of twelve members, two to be elected by each of the Universities of Oxford, Cambridge, and London, and six to be appointed by the Crown. Private and proprietary schools, on submitting to registration, should be admitted to the privileges of public schools, and new public schools provided out of parochial rates.

The Commissioners conclude their report with these words:—"We believe that schools, above most other institutions, require thorough concert among themselves for their requisite efficiency; but there is in this country neither organization, nor supervision, nor effective tests to distinguish the incompetent from the truly successful; and we cannot but regard this state of things as most unjust to all good schools and schoolmasters, and discreditable and injurious to the country itself."

ARTHUR LOCKER.

V.—THE EXHIBITION OF NATIONAL PORTRAITS, 1868.

With the Third Exhibition of National Portraits the series has been brought to a close; and we are now in a position to estimate fairly its value as a whole, the light it has thrown on the history of portrait painting in England, and the treasures we possess in this branch of pictorial art.

The Exhibition of 1868 ranged "from the commencement of the century to the present time:" that is, it contained the portraits of all deemed worthy of admission, or whose portraits were obtainable, who were living in 1800 or since, but had ceased to live in 1868. But besides these worthies of the present century, there was included in this third exhibition a collection supplementary to the exhibitions of the two previous years, comprising portraits of distinguished persons overlooked then or not to be obtained, and such additional portraits as were subsequently offered: a collection especially valuable as having brought to light many fine pictures hitherto almost unknown, or which had fallen out of sight or memory. The number of pictures exhibited was 950, but in some instances there were two or more portraits of the same person, while many pictures contained representations of several persons. In all, about 1,200 persons were represented, the number of painters to whom the pictures were attributed being about 280. Striking off a few from each for repetitions and nobodys, and deducting the supplementary pictures, we had here portraits "taken from the life" of between 700 and 800 of the most distinguished men and women, painted by 200 of the best artists of the century.

As compared with the previous exhibitions this, apart from the supplementary collection, embraced a more limited period, and displayed, it must be confessed, a much lower order of technical skill. The First Exhibition covered a space of five centuries, and included the works of men who not merely were the greatest foreign artists who have practised portrait painting in England, but were among the greatest portrait painters of any age or country. In the Second Exhibition we were able to trace the rise and progress of our English school of portraiture to its culmination in Reynolds and Gainsborough. In the third, we have had to recognise its rapid and apparently hopeless decline. Yet though the last was unquestionably far inferior to both its predecessors as an exhibition of works of art, and was wanting in some of the features of historical and antiquarian interest by which they were distinguished, it had many points of interest peculiarly its own, and it was impossible to witness its close and the dispersion of the pictures without feeling the kind of regret we experience when something of unique worth or beauty passes away, and as we feel passes away for ever.

The special interest of this exhibition lay in the circumstance that the larger part of the people represented were those whose names have been household words from childhood—whose doings have been our ordinary table-talk, whose habits, actions, words, books, pictures, performances, we have daily noted, watched for, criticised; some

whose voices we have often listened to, whose faces we have been familiar with, with whom we have taken counsel or held strife; others whose names and works we knew and prized, though their features were strange—but all, the men and women who distinctively represent our own time and country, and through whom it will be judged. No wonder, then, that, whether with the mere idler and gossip or with visitors of a far different class, this should have been a more popular exhibition than those of the previous years.

Before looking at this recent portion of the exhibition, however, we must examine the supplementary pictures.

The Supplementary Collection was, we fear, hardly appreciated as it deserved to be by the majority of visitors. Yet its value was very great. Many thought that our galleries and private collections had been pretty closely reaped for the two former exhibitions, yet here were brought together 320 more old portraits, and others were arriving to the very opening of the exhibition: who, then, shall say what treasures of a like kind may not yet remain for the gleaning? The intrinsic value of the supplementary portraits was as remarkable as their number. At the first exhibition, 63 portraits were shown as from the pencil of Holbein. Short work was made of the claims of most of them, hardly a tithe being admitted as really by the master. Yet on this occasion, though the owners of supposed Holbeins might well be scrupulous about submitting their cherished jewels to such an ordeal, nine more were contributed with his name attached as the painter, and, let us say at once, attached with much more discrimination than before. By Vandyck there were 9 new portraits; by Kneller, half a-dozen; by Lely 8. And, coming to our own great masters in portraiture, to the 30 of Hogarth's formerly exhibited, 9 were now added; to Gainsborough's 52 of last year, we had an addition of 27, and to the 154 then shown of Reynolds's, no fewer than 34 more were added. Truly a glorious gleaning, and affording, with those before shown, a means of estimating the powers of the men far beyond what their contemporaries ever enjoyed, and far greater than could possibly have been anticipated in our day.

Among the portraits in the first exhibition (and noticed at length in the *Companion* for 1867, p. 40) one of the most interesting to the antiquary and the student of the historical development of art in England, was the portrait of Richard II. from the Jerusalem Chamber. It was again shown in this supplementary collection, and for a sufficient reason. In 1866, the transformation it had undergone at the hands of picture cleaners and so-called restorers was but too evident. The curiosity it excited, and the comments made on its condition, stimulated the Dean and Chapter of Westminster, its official custodians, to endeavour to remedy, if possible, the mischief that had been perpetrated under the sanction of their predecessors. Acting on sound advice, they placed the picture in the hands of Mr. Merritt, a man of much experience and caution, Mr. G. Richmond, R.A., undertaking personally to superintend the proceedings. Preliminary experiments proving successful almost beyond hope, the whole of the modern painting was gradually removed, and the original work, of the time of Richard II., or shortly after, was once more

brought to light, comparatively uninjured, if not precisely as Mr. Scharf (who watched the process throughout, and described the result in a paper read before the Archæological Institute) stated, "exactly as it was executed by the artist of the fourteenth century." There, at any rate, we had re-produced, free from all subsequent sophistication, the oldest portrait of an English king extant. This extraordinary result was due to the portrait having been painted in tempera, on an intonaco of lime, and hence resisting the solvents which removed the later oil colours. The features, as restored, are curiously unlike those seen in the picture at the first exhibition, and so often copied in antiquarian publications, and agree as curiously with the bronze effigy of the king in Westminster Abbey, and with his coins. The lines of the mouth droop in sympathy with the melancholy expression of the whole countenance, instead of curving upwards into a simper as before. The odd little tufts of hair on the chin, noticeable in the bronze effigy, came to light in the portrait, as soon as the modern paint was removed. The false minever, the sixteenth century diapering, and the eighteenth century ornaments, all gave way, and the genuine fourteenth century Gothic reappeared. The picture, as it stands, is one the historic student may profitably study. The placid, feeble physiognomy, the effeminate hands, the entire bearing of the man, will explain or confirm the notion that may have been formed of this "most degenerate king," over whom, even to the poor limner, it was apparent that "reproach and dissolution hangeth," the presentiment of a "nameless woe."

The Holbeins, both genuine and reputed, were exceedingly interesting. Whether Lord Taunton's miniature portrait of 'Henry Howard, Earl of Surrey, and a Lady, supposed to be the Fair Geraldine' (No. 626), be rightly ascribed to Holbein, might, for instance, be questioned, but the picture itself is in its way as charming as one of Howard's own little poems, as quaint, as delicate, as full of amorous fancy, and as daintily finished. We look at the little tablet, and Surrey himself is before us. About this picture "we have a fancy of our own," and why should we conceal it? May not this very picture have been one of Surrey's dainty inventions to please his ladye-love? The earl and lady stand side by side in a pleasant sunlit landscape, through which a clear stream wanders at its will, and in the bordering meadows on one side ride a knight and lady, on the other are a couple walking hand-in-hand. Surrey—there can be as little doubt that it is Surrey who is represented, as that the picture is of Surrey's time—bravely apparelled, as was his wont, stands dallying with a heartsease (love-in-idleness), while Geraldine—if Geraldine it be—holds in her hand his captive heart, Cupid the while fluttering in the air, ready to discharge an arrow. The emblems are threadbare and faded now after three centuries of rough wear, but we may fancy the poet contriving, with the limner, the pleasant landscape; the image of the blind god he so often refers to in his poems; the

> "Lively art and hue
> Of sundry shapes and colours new;"

himself addressing "the Mistress of his Heart" (as in the poem so entitled) as he presented the dainty little picture:

"Thus good mine own, lo! here my trust;
Lo here my truth and service just!
Lo in what case for you I stand!
Lo, how you have me in your hand!"

We should like to believe that the young Holbein lent his aid to body forth the fancies of the poet, and that we had here the result of the joint inventions of two such men. If we were owner of the picture it should be entitled "Surrey and the Mistress of his Heart." It was wrong-headed Dr. Nott, not the Earl of Surrey, who affixed the name of Geraldine to five-sixths of the poems.

Less doubtful as to the painter, and equally certain as to the persons, are the heads of Reskimer, the Protector Seymour, Sir Brian Tuke, Bishop Stokesley and Lady Guildford; and the Duke of Northumberland's exquisite full-length of Edward VI. The head of John Reskimer (628) is chiefly valuable as one of the portraits executed by Holbein shortly after his settlement in England, its authenticity being vouched by the drawing in the Royal Collection. It is capitally painted—and happily may any day be seen at Hampton Court. Mr. Frewen's previously unknown portrait of Lady Guildford (659), like that of Reskimer, is valuable as a picture rather than for the person, though, looking at the likenesses, it is hardly possible not to wish for some further information respecting the persons. Lady Guildford is the companion to the unquestioned portrait of Sir Henry Guildford, which attracted much notice in the First Exhibition, but is much better preserved and much more pleasing. It is in truth a wonderfully painted picture. Holbein must have felt that the sitter was worthy of his pencil, and put forth all his power to render justice to her. It is merely the representation of a plain matronly lady, but, as she looks at you through her clear calm eyes, you forget paint and painter and seem to see the very living, breathing woman. Of its kind and class it is one of the most perfectly successful pictures ever painted, the modelling of the flesh, the treatment of the drapery, the general effect, alike afford a lesson our younger painters could not too closely study. Very different, but equally characteristic, and equally well painted, is the keen, hard, cruel face of Stokesley, Bishop of London (656), one of the many choice things removed from Hampton Court to Windsor Castle, and which, when at the former place, used to be labelled 'Martin Luther.' The Marquis of Westminster's small but exquisitely painted portrait of Sir Brian Tuke (625) is one of the few pictures which Mr. Wornum, in his 'Life of Holbein,' places among the unquestionably genuine works of the great painter, but the inscription appears to be of later date. Of greater power, though painted with less refinement, is the Duke of Northumberland's head—little more than a miniature—of the Protector Somerset (627), looking already borne down by care and prescient of his fate. Sir John Bourchier, Lord Berners, the translator of Froissart (655), is another admirably painted head, and its authenticity (at any rate as to the person) seems attested by its being sent by the present Lord Berners; but we were unable to persuade ourselves that Holbein was the painter. About the authorship of the Duke of Northumberland's full-length of Edward VI. when a child, there could however be no question, and a very suggestive and interesting picture it is—the

original, there can be little doubt, of the whole series of these boy Edward portraits, and probably Holbein's own new year's gift to the king. The replica (No. 657), is evidently one of the hundred and one "genuine Holbein's" painted by the master's pupils or assistants, and very likely under his eye, to meet the urgency of court or courtiers.

A curious and suggestive contrast to these Holbein portraits was afforded by Mr. Cubitt's "John Lymden, last prior of Reigate" (634). In this odd rude picture Lymden carries the martyr's palm, but he had not, as far as we know, to wear the martyr's crown. Luckier than some of his fellow priors and abbots, he only lost his house, settling down on a pension of 10*l.* a year (which he lived for nineteen years to enjoy), whereas they lost house and head into the bargain. Prior Lymden's grim looks may perhaps be ascribed to the limner, for the picture shows that whilst Holbein was practising in high places, there were some provincial brethren of the brush, perhaps ejected art workmen from the suppressed monasteries, who were little above the level of the village painters of our own time. This picture, by the way, illustrates what we said in the previous years of the scrupulousness with which inscriptions require to be examined. The catalogue states that "a medallion above" is inscribed "with name and date as Prior of Reigate, 1530; dated 1531, æt. suæ. 65." Now this would seem to authenticate the portrait, and fix the time of its execution. But the catalogue does not notice that there is a corresponding inscription on the right, "Obiit a^o. d^ni., 1554." Both inscriptions appear to have been written at the same time, but unless the latter was added at least twenty-five years after the picture was painted it invalidates any claim of the portrait to having been painted from the life, and reduces it to the rank of a memorial picture.

A portrait that, owing to the singularity of costume, attracted much notice and caused a good deal of writing in the journals, was Lord Dillon's full length of 'Sir Thomas Lee of Ireland' (631), not an Irishman as the title would imply, but one of the Buckinghamshire Lees, who obtained an estate in Ireland and went there to live; attached himself to Essex, and was beheaded for his share in the earl's insurrection. The knight, who is standing in a wild woodland and mountainous landscape, is arrayed handsomely enough as regards the upper man (except that a master of the ceremonies might object to his "laced and embroidered shirt" being open to the chest), but wholly unarrayed in the nether—his legs and feet being quite bare. One letter writer indeed thought there must be at least that sort of covering which young ladies on the stage have rendered familiar. But he could not have seen the portrait. Others conceived it to be merely a fancy costume, like those of the Dilettanti portraits; that the bare legs were to conciliate the natives; or that Sir Thomas was probably an enthusiastic otter-hunter, and chose to be painted in hunter's habit. The last seemed one of the most reasonable conjectures; but then, besides his embroidered shirt, the knight has not only petronel and long light spear, which might be of service against otters, but helmet and shield, which would hardly be needed against such a foe. The real explanation seems very simple, though, as far as we know, it

has not been hit upon. Sir Thomas was in Ireland at a time when the English were engaged in a constant struggle with the wild or rebel Irish, as they are indifferently designated. Lee must have had more serious work on hand than otter-hunting. He had probably often to follow the Irish across their bogs (Spenser in his 'View of the State of Ireland,' refers to the difficulty of tracking the rebels among bogs and through deep fords), or to attack their lake fortresses, and he may have recognised, as Spenser, writing the year before this portrait was painted, recognised, the fitness of the native dress (or undress) for this special service. Now, we know not only that the "wild Irish" always went with bare legs and feet at that time, but that down to our own day bare feet and legs were in Ireland considered indispensable for successful bog-trotting. Our explanation then, is, that Sir Thomas Lee had himself painted in the habit he wore for this kind of service in Ireland. The picture may be commemorative of some particular incident—as Earl Cardigan had himself painted in the dress he wore at the charge of the Light Brigade—or it may be in reference to the hardships he suffered and the service he had rendered, and what he fancied was his inadequate reward; pointed at, perhaps, in the device of a globe and feather, and the motto on the tree on the left "Facere et Pati Fortia." At any rate the grave, hard, resolute face belies the notion of his having had himself represented in such a guise without some definite object. After all, this uncertainty serves to strengthen a regret expressed last year that the authorities did not request the owners of the pictures to send, for publication in the catalogue, a brief statement of what was known respecting their history, the purpose for which they were painted, or the circumstances under which they came into the hands of their present owners. Lord Dillon is the representative of the Buckingham Lees, and most likely, therefore, with the picture, has inherited the family tradition respecting it, and would have as readily supplied the one as lent the other.

Another of Lord Dillon's pictures—altogether a most interesting contribution—is puzzling, partly on account of the costume. It is entitled 'Sir Francis Drake by Sir Antonio More' (663), and would do no discredit to Sir Anthony's pencil. But then comes a difficulty with the dress. This man is a palpable dandy. His dress is evidently in the highest fashion; the sleeves of his doublet are embroidered with globes; from his neck is hung a ring with which he is toying admiringly, while a couple of other rings are fastened by ribbons to his wrist and arm. Well; may not Drake have been a coxcomb in dress, as other brave men of his time were; have had the globe he had circumnavigated embroidered on his coat, and coquetted with the ring which perhaps his royal mistress had bestowed on him? All this may be; but then the picture cannot be of Antonio More's painting, for he had ceased to paint before Drake made his famous voyage; and the picture really looks as though More painted it, while the portrait does not resemble the recognised likeness of Drake. About the authenticity of the portrait of Sir Walter Raleigh (646), in his pearl embroidered doublet, with the map of Cadiz in the background, there could be no question, and as little we should have thought (but that

it has been questioned) of that his wife Elizabeth Throckmorton (640), both good studies for character and costume.

More noteworthy as an example of the manner of using emblems in pictures than for its artistic merits was the portrait of Queen Elizabeth (642), where the queen, in an outrageous farthingale and stupendous winged ruff, is standing on the map of England. A sort of companion picture, Mary Queen of Scots (681), adds another proof that the painters or proprietors of her portraits are no more agreed about her features than historians about her conduct.

Passing onwards, for all we can do is to stop now and then at a representative portrait, we are arrested by a magnificent example of the pencil of our 'English Vandyck,' or Tintoretto as Charles I. styled him, William Dobson, in the picture of himself, Sir Charles Cotterel, and Sir Balthazar Gerbier (710). It is a picture, there can be no mistaking, of three friends of easy life and social habits painted *con amore* by one of them as a memorial of their friendship. Life, and ease, and spontaneity characterise every touch of it. It seems dashed off at a heat, and yet is sufficiently finished. Gerbier, painter, architect, master of the horse to the Duke of Buckingham, and ambassador, picture buyer, and private agent for Charles I., born in Holland, "a French man by the masculin line, of Spanish blud by the Mother, so my selfe French by Father and Mother," but as he vows "heart, tooth, and naile English," is thoroughly individual and characteristic, robust, jovial in manner, but with a sly diplomatic watchfulness. But, excellent as it is, it is surpassed in vigour, naturalness, and easy humour by the admirable portrait of the painter himself. The style of the picture is broad and vigorous, the composition good, the colour brilliant, the pose as well as the features full of individuality. Had he lived longer and led not quite so jovial a life, Dobson, instead of Reynolds, might have been the founder of the English school of portrait painting.

As we are only running the eye over these supplementary portraits, we will not, however tempted, linger at those of Dobson's master, Vandyck, further than to note that among them were two in excellent preservation of Dudley, fourth Lord North (685), and his sister Lady Dacre (696)—that of his wife (686) being by Cornelius Jansen;—one of the fighting Lord Widrington (692); a splendid full-length of the poet Waller, and others of the Countess of Carlisle and her sister the Countess of Leicester, the mother of Algernon Sidney. Of Sidney himself there was a very good portrait (Lord Spencer's) by Sir Peter Lely; as there was one without a painter's name, but contributed by the Duke of Devonshire, of Lord William Russell.

In the notabilities of the Commonwealth time the Supplementary Collection was unexpectedly rich. Here, for example, was a whole bevy of Cromwells, the contribution of Lady Frankland Russell, the lineal descendant of the Protector. Thus brought together they were extremely interesting, and coming from such an authority they have naturally met with pretty general acceptance. Yet, against our will, we are forced to take exception to one or two of them. For example, there was what one could not help wishing to be a genuine portrait of the Protector as a child two years old (No. 728). Happily on the

back it carried its history. "Picture purchased Jan., 1791, from Mr. Graves, printseller in Catherine Street, to whom Mr. Gerard, the auctioneer, sold it many years since, among the furniture of Mr. Story of Greek Street, whose mother was waiting-woman to Mrs. Ireton, daughter to Oliver Cromwell.—T. F." The face, it has been said, would alone authenticate the picture. We don't think so. As to the history, 1791 is rather late in date, and the auctioneer rather doubtful as an authority, whilst it scarcely seems feasible that Mrs. Ireton would have given her father's portrait to her waiting-maid. Nor can we recognise the likeness. It is evidently a little Puritan, but of the Commonwealth period, not of good Queen Bess's golden days, when Oliver was a two-year old child. Then there is Bridget Cromwell, Oliver's eldest daughter (727), who was born in 1624, but the painter's signature figures plainly enough, C. J., 1638, when Bridget would have been a prim maiden of fourteen, whereas this is a lady who would certainly own to forty. Frances Cromwell, Lady Russell (721), and Mary Lady Fauconberg (729) we see no occasion to question, nor Richard Cromwell (733), a characteristic head by Robert Walker, though we should like to have had its history. But what is to be said of Henry Cromwell (732), which looks like one of Walker's best works, but quite unlike a Cromwell? Certainly if Henry Cromwell resembled this handsome, manly, resolute young fellow, we may well believe, as has been said, that things would have gone differently if he had succeeded his father. A fine portrait of Claverhouse (720) is especially interesting, as corroborating by its strong resemblance the authenticity of the noble portrait which appeared in last year's exhibition. Not only both sides, but all grades of Commonwealth and Restoration people were here, including men such as the fiery Hugh Peters, pious Robert Nelson of Fasts and Festivals fame, the excellent Richard Baxter (an admirable portrait by Riley from Dr. Williams's library), and the equally excellent John Howe; and women, from good Lady Coventry down to naughty Nell Gwyn, who, if half her portraits be genuine, must have spent nearly as much time in undressing for the painters as in dressing for ordinary life.

Passing to another compartment, we may notice as a good example of Lely's skill in painting a manly intellectual head before he had been spoiled by representing Court beauties, the admirable portrait of the honest and scholarly, but somewhat pedantic, statesman and essayist Sir William Temple (743), well known however by the engravings. A little farther on hung Bishop Atterbury (753), not so successful an example of Kneller's pencil. Here also were several more of the Dutch friends, generals, and statesmen of William III., for the most part worthy-looking, but not very fascinating or heroic personages, and good average specimens of Kneller's art. But few, if any, of the Knellers here were above the average. Sir Godfrey had not the faculty of discerning latent heroism. Here, for example, was a family group of the Earl and Countess of Derwentwater, and their only daughter, afterwards Lady Petre. As a state group nothing could be more correct, and respectable, and dull. The peer stands holding his coronet as formally as though at a royal funeral; the

lady sits with the infant on her knee as though she had just received it from the nurse, who was waiting to take it back as soon as the fixed time for the maternal interview was over. Kneller evidently saw nothing in his sitters but an earl and his countess. He had no suspicion that a little while and the earl's head would be held up to the gaze of the mob on Tower Hill as the head of a traitor; that the countess, after urging him to risk all and brave the danger, would have been the devoted sharer of his prison, the unceasing petitioner for his pardon. If there was any heroism visible in the countenance of either, or any imaginative quality such as might seem to belong to daring like theirs, Kneller failed to see it. He had a commission to paint an earl and countess, and he painted them in the correct manner. The canvas is signed G. Kneller, 1714; the earl was beheaded in 1715. Then, as another illustration of the truth that a painter can see but what he is, and give but what he has, here was Denner's portrait of Handel (750), now in the appropriate keeping of the Sacred Harmonic Society. Hudson's portrait of Handel in the previous exhibition showed only the great musician's fatness and finery. Denner, though a better artist, was little more capable than Hudson of representing genius, but he probably knew and admired Handel, and for the nonce seemed almost inspired. As he has painted him Handel looks bright and jubilant, and in a non-exacting moment one could even admit the possibility of this being a great musician, though, without knowing the fact, hardly the composer of the Messiah and the Israel in Egypt. It is but a poor portrait, but it is the best we have of him, and we must be content. A less solid looking personage is Dr. Arne (756) the composer of Artaxerxes and Rule Britannia. The picture is by Zoffany, and, like the Handel, belongs to the Sacred Harmonic Society. Humbler than either, both as picture and composer, but properly enough associated with them here, was the portrait of Richard Leveridge, the sad-looking composer of that merry tune, "O the Roast Beef of Old England."

By Hogarth, as was said above, there were nine new portraits, and they were among those examined most eagerly, and which stood examination the best. The previous exhibition may be said to have revealed the merits of Hogarth as a portrait painter. It was so at least with the present generation, and his own believed in Walpole, and was afraid to recognise him as anything better than a caricaturist. In noticing the Hogarth portraits last year, whilst pointing out the rare merit of that called Sarah Malcolm, the murderess, we showed that it could not have been meant for her; and that the veritable Sarah Malcolm was a very different personage was palpable this year from the small, full-length portrait (802), which Hogarth painted from the life in Newgate shortly before her execution. This woman has resolution enough to do any evil deed, but, unlike the Sarah Malcolm of last year, she is a mere vulgar malefactor. She is in the condemned cell, seated, with her crossed arms leaning on a table, glaring almost savagely before her. For the rosary which, in the picture, lies on the table, Hogarth has, in the engraving, substituted a knife. As illustrating Hogarth's power of strong expression, Lord Feversham's large picture of Garrick as Richard III. starting up from his dream

in the well-remembered tent-scene, was very remarkable. Hogarth himself, as we know, considered this to be one of his greatest achievements in portraiture. But the effect of the uncouth costume, awkward figure, and theatrical posture is, at the first glance, so ludicrous, that it is likely to be set down as another of Hogarth's tragic failures. Attention, however, is soon fixed by the intensity of feeling and concentration of expression in the countenance; you see there that wondrous power of the eye by which Garrick always held the spectator captive, and little by little you come to appreciate the enthusiasm with which his contemporaries wrote and spoke of him. Portraits of actors and actresses are seldom wholly satisfactory, but that of the naughty but fascinating Peg Woffington (754), would satisfy the most exacting critic, and the prudest sister of charity. Very demure and very charming she looks in her flat hat and lace mob—the lace no less than the face being a marvel of good painting and tender handling. The face of Kitty Clive (759), also by Hogarth, was less attractive; but this might have been expected, for though a better woman, and at least as good an actress, on the stage, off the stage the living Kitty was far less enchanting than "My Peggy," or, as some one called her, everybody's Peggy. The large full-length of Captain Coram (803), which Hogarth painted in order to present to the Foundling Hospital, was as capital an illustration of his power in painting men, as the Woffington of his skill in representing women. The others were of a more commonplace kind.

One of the advantages of a supplementary exhibition like this, is the opportunity it affords of rectifying an oversight. Last year in commenting on the Panshanger Cowper, we expressed regret that the committee had not succeeded in obtaining the drawing in coloured crayons of the poet by Romney, executed at Hayley's house in 1792; praised by Cowper in a sonnet; declared by Hayley to be "one of the most masterly and faithful resemblances he ever beheld," and considered by Romney himself to be "the nearest approach he had ever made to a perfect representation of life and character." This year it was forwarded by Mr. Vaughan Johnson (No. 777). Alone it would have been worth a journey to South Kensington to see. The living likeness of a man of genius, by a man of genius and temperament somewhat akin to his own, it must have been taken in one of the poet's seasons of nervous excitement, when the mind was hovering between the realms of poetic sensitiveness and insanity. The strained unconscious eye, dilated pupil, compressed lips, and nervous grasp of the book tell unmistakeably the story of the man. It was very well engraved by Stock, from a singularly faithful drawing by William Harvey, for Southey's Cowper, but good as the engraving is, it but feebly represents the power of the original. Next to it (778), and doubly interesting in such close connection, was the miniature of Cowper's mother, the receipt of which called forth the pathetic lines beginning "O that those lips had language!" The miniature was without a painter's name in the catalogue, but it was by Heins, a German artist, who had settled in Norfolk, where it was painted, and whence it was sent to Cowper by his cousin in 1790. Without a name it would be passed by as a pretty, old-fashioned

miniature, but knowing whom it represents, you regard with increased sympathy both the likeness and the words,—

> "Those lips are thine—thy own sweet smile I see,
> The same that oft in childhood solaced me;"

and look lovingly on "the meek intelligence of those dear eyes." Anne Donne was never strictly beautiful, but in those large swimming eyes we see the mother of the poet, and alike in eyes and lips, and sad, though sweet smile, recognise something of the nervous sensibility that was through life his fearful burden, though the source of his poetic power. Associated as these pictures are with our literature, we hardly know any other two, however much more imposing or valuable they might be as pictures, we should more rejoice to see find a permanent home, or that would secure a more honoured place, in our National Portrait Gallery.

Less interesting certainly, but still interesting, especially to those who hold the theory that eminent men are most beholden to their mothers, was the portrait of the Mother of General Wolfe (806), seemingly an amiable woman, but not otherwise remarkable. By it was the portrait of Wolfe himself (804), a very young man in military uniform, whose curiously feeble face might serve as a study for the physiognomist, and go far to explain the "terror" Pitt is said to have felt after the interview he had with Wolfe on having appointed him, on the strength of his reputation, to the command in Quebec. The portrait of Wolfe when a boy (767), studying a plan of the Battle of Blenheim, with arms and armour beside him, might seem to indicate a very early recognition of the bent of his genius; but it is only a fancy portrait, signed and dated by the painter, 'B. West, 1777,' not only long after the boy had grown to be a man, but long after the general had been killed at Quebec and buried at Greenwich (1759). Next to Wolfe hung the portrait of a fellow-warrior, whose death a year or two before Wolfe's was as dreadful a contrast to his as it is possible for an English officer to imagine. Admiral Byng (805), in his portrait, looks neither fool nor coward, but a plain, frank, English sailor—just one however who may have been a thought too scrupulous, too exact an adherent to routine, and devoted to red tape—but if we had tried later sailors and soldiers by the law we applied to Byng what a pretty biographical history the annals of the past and present century would afford!

Last year we entered at so much length into the actual and relative merits of Reynolds and Gainsborough, that, trying as it is to do so, we may on this occasion, with so much else waiting for notice, fairly pass by the artists, with the remark that the additional pictures only served to confirm what we said of the power and variety of the one and the grace and sweetness of the other, and merely point to a few of their portraits on account of the persons represented. Among the Reynoldses was a group (824) of three famous members of the world of wit and good society, George Selwyn, Gilley Williams, and Reynolds's early patron Dick Edgecumbe; the airy gaiety of men of fashion being in them blended with intelligence, and the admixture rendered with an easy unconsciousness, the result no doubt of familiarity, stimulated it may be, by the desire to satisfy an exacting critic;

for the sitters were among the frequenters of Sir Joshua's dinner-table and drawing-room, and the picture was a commission from Horace Walpole. Others were, Bennet Langton (829), Johnson's most cherished friend and the friend of the painter—a quiet, amiable, hardly brilliant man; Burke (820), the Burney portrait; Garrick and his wife (837), painted for Garrick himself, and one of the best in which the inseparable couple were represented together; and, in some respects finest of all, Admiral Keppel (843), a magnificently executed picture, one of those Reynolds painted for Keppel to present to Burke and his counsel Dunning and Lee, as a mark of gratitude for the service they had rendered him at his trial. The Keppel belongs to the National Portrait Gallery, the trustees of which may be congratulated on having secured so grand a portrait of so distinguished a man. Of a different order, there were his charming portrait of the heroic Lady Acland (865); the more brilliant one of Mrs. Masters (832), the reigning beauty of '79; and the group contributed by Lord Crewe of Mrs. Crewe and Mrs. Bouverie, two scarcely, if at all, less famous beauties of a little earlier season, here represented in the full flush of their loveliness, with a grace and purity hardly possible to be surpassed. As representing the large class of portraits of children, in which Reynolds was confessedly unrivalled, may be noted the fourth Duke of Buccleuch, when a boy of five, leaning against a stone slab and playing with an owl, full of quaintness yet in excellent taste; and the large Gorhambury group of the Grimston family (827). Lastly, here we may mention his profile sketch, or little more, of Perdita (Mrs. Robinson) as sweeter in expression and better in feeling than even Gainsborough's very beautiful and carefully-finished portrait of her within an oval frame—though that in its way is a triumph of good painting.

Gainsborough's noticeable men include Earl Howe (877) in his Admiral's uniform, his heavy brow and swarthy countenance fully sustaining the sailor's familiar cognomen of Black Jack; Quin, a full-length and very well painted, but not particularly characteristic of the lover of good dinners and sayer of good things; and Prince Hoare, a poor artist, and a not much better art-critic. But Gainsborough's men are more commonly lords and fine gentlemen, for he was as distinctively the painter of the fashionable world as Reynolds was of the intellectual. His matchless female portraits, however, made ample amends for the somewhat feeble character of the masculine. And of these there was a goodly number, from his pretty wife (816), to the courtly Duchess of Montagu (858), Lady Eardley and her daughter (845), and the exquisite Mrs. Leyborne—the pearl of the series. Mrs. Fitzherbert (821), if it be really by him and not an imitation, or a copy, is a poor affair. Better by far was that interesting portrait of Priscilla Wakefield—whose little books enjoyed a wide popularity in the latter part of the last century—and her sister Catherine Bell, afterwards Mrs. Gurney, and the mother of Elizabeth Fry.

Romney,—there were eighteen of his portraits in the collection,—was seen to more advantage in this than the last year's exhibition. His Admiral Keppel indeed compared badly with Sir Joshua's, but, besides the Cowper already noticed, there were several others which

came to the rescue. In Hayley (859) he had a poet very inferior to Cowper, but it is a good and characteristic likeness of a not very strong man, though rather a strong enthusiast. Paley was a better subject, and the comfortable-looking archdeacon in his clerical costume, strolling by the river-side, fishing-rod in hand, makes a lively representation of a well-satisfied church dignitary of the pre-ritualistic days, when no commissions were looming in the distance, or little cloud threatening disendowment was visible on the horizon. Methodism indeed was rampant, but hardly disturbed the equanimity of the archdeacon or his bishop—whom Romney has also shown, like the archdeacon, in walking trim. But Bishop Law of Carlisle (879) carries a walking-stick instead of fishing-rod or pastoral crook, and, like his archdeacon, looks as though he took matters easily. Here also, but at a respectful distance, was John Wesley (870), painted by Romney in clerical garb, and on the whole an excellent portrait, though not exactly satisfying one's conception of the founder of Methodism. The finest female portrait by him was the Countess of Mansfield (854), seated beneath a tree, in a low yellow dress—a difficult colour here treated with much success—the lady herself distinguished by almost classical simplicity, ease, and natural dignity—but injured by the arms being placed a-kimbo. Even finer in some respects was the Countess of Warwick and her children (815), but more in the style of later days than of those of Reynolds and Gainsborough—a foreshadowing, in fact, of Lawrence, but better. The boy standing with a hoop in his hand, his frank, handsome face turned full upon you, is equal as a delineation of character to any of Reynolds' children. Looking at pictures like these we can understand how there might be a Romney as well as a Reynolds faction, and king and chancellor declare themselves for Romney. He had neither the power, the variety, nor the colour of Reynolds; the grace and *abandon* of Gainsborough, or the mastery over his tools which both those remarkable men possessed, but his method was safer than theirs, and he had great power of characterization, and it is one of the many good effects of this exhibition that it will go far to restore him to his right place among English portrait painters.

We have lingered an unconscionable time over this Supplementary Collection, but will confess that to us it was by far the most interesting, and even now we cannot quit it without just indicating one or two more of its specialties. Here, for example, was that respectable royalist Sir Roger L'Estrange (714), hung between Richard Baxter (713) and Accepted Frewen, Archbishop of York, the latter in his episcopal robes and bible in hand, looking as though he were about to exorcise the company he found himself thrust into. Alexander Pope (790) was here, painted by Hoare, who has rendered the sickly waspish face of the poet very cleverly. The head of Gray, by Wilson the landscape painter, looked quite insipid alongside of it. Hard-working, care-worn Dr. Kippis, in his full-bottomed wig, was here cheek-by-jowl with mad Earl Ferrers, and vacant rather than earnest-eyed Sir George Browne, the Sir Plume

> "Of amber snuff-box justly vain,
> And the nice conduct of a clouded cane."

Here, too, were the Edgeworth family, a dozen in all; Wilkes, with his diabolical squint, but no Churchill or Lloyd; Elizabeth Chudleigh, the bigamist Duchess of Kingston, looking as impudent as she was, and pretty after a coarse sensual type; the intellectual but certainly not pretty Fanny Burney, in a black hat and low dress; and, in dress still lower, the pretty, but certainly not intellectual Duchess of three-tails, Elizabeth Gunning.

In a coarsely painted interior (914), George Morland described himself to the life as though he had written with pen as well as pencil. Evidently a work of his later days, when he was fast losing, if he had not already lost, all sense of shame, he has represented himself in a rude unfurnished garret, sitting at work at his easel, dressed in a loose coachman's great coat, out-at-elbows, his dinner of bread and cheese protruding from the pocket, a pewter-measure of gin by his side—dirty, uncombed, disreputable, but not dissatisfied—at any rate with himself. Close against this picture of the painter in dirt and disarray were, in odd juxtaposition, a couple of representations of the amateur in all the splendour of artistic luxury. One by Cosway (909), shows Charles Townley, in his Park-street gallery surrounded by admiring friends "examining a torso of Venus placed upon an antique altar;" in the other, a better picture by Zoffany (913), he is in his library, admiring the Clytie, his brother and other friends assisting, whilst in both the choicest of the Townley Marbles—now happily housed in the British Museum—are ranged around.

The Birmingham Lunar Society, a society which has lately been somewhat talked of in connection with the names of Watt and Wedgwood, was here represented by half a dozen of its members, but Watt was not among them, and Wedgwood appeared only in a copy of Sir Joshua's well-known portrait. Most noteworthy was the anxious face, worn by toil or care, or both, of Joseph Priestley (908), and doubly interesting, as not only a faithful likeness, but one of the few portraits left from Fuseli's pencil, and the only one here, was Withering, with his British Flora open before him and holding a head of foxglove in his hand, as though he required the book to determine the species—kindly-looking, but rather frigid, as we might expect a Lunar botanist to be. The other members were all in sober garb except the author of Sandford and Merton (906), who was, appropriately enough, in a masquerade habit, painted by Wright, of Derby.

Oddest of all, however, as to fancy dresses were the portraits of Members of the Dilettanti Society (916—946). These portraits have long been famous but, outside the society, comparatively few besides Fellows of the Royal Society, who eat their annual dinner in the room round which they are hung, had had the opportunity of seeing them, till the Society handsomely sent the whole thirty-one to South Kensington, only and wisely stipulating that they should hang together. The society was founded in 1754 as the Dilettanti Club, avowedly for "advancing the Fine Arts in Great Britain," but Walpole, mentioning it a year or two later to Sir Horace Mann, says it is "a club for which the nominal qualification is having been in Italy, and the real one being drunk: the two chiefs are Lord Middlesex and Sir Francis Dashwood, who were seldom sober the whole time they

were in Italy." This unflattering description will serve to explain the strange character of the portraits. A year or two before Walpole wrote the passage just quoted, a resolution was passed that every member should "make a present of his picture in oil colours, done by Mr. George Knapton, a member, to be hung up in the room where the society meets." Twenty-three of those exhibited were by him, and nearly all were in fancy dresses. Lord Le Despencer—the Sir Francis Dashwood of Walpole's note, and leader of the orgies at Medmenham Abbey—was here depicted as a tonsured monk bending in adoration before a statue of Venus; his fellow worthy, the Earl of Sandwich, in oriental robes; the Duke of Dorset, taking a higher flight, exhibits himself as a Roman general, in which he is followed by three or four others; Viscount Galway thinks himself more comfortable in a cardinal's robe, but shows behind him the head of a grinning satyr. Other members betake themselves to humbler aims. Sir Bourchier Wray addresses himself with evident goodwill to the concoction of a bowl of punch; the Earl of Holderness is showing that he can feather an oar with skill and dexterity; this one is a flute player, the other a wandering guitarist. It might amuse an idle half hour to see how far the real character of each was adumbrated in the assumed one, but there is no time for that now, if even this were the place or season. Knapton, who painted these portraits, is likely to be kept longest in memory by them. He was an easy jovial fellow, who had been in Italy, and so secured the honours of the club, and by-and-by, having friends, settled down as keeper of the royal prints and pictures. His Dilettanti portraits, invaluable as memorials of the time and men, are in themselves very insipid productions. Wonderful is the contrast between them and two groups of members painted several years later (1779) by Sir Joshua Reynolds, and among the most brilliant and best preserved of this class of his works. By this time the members had cast aside the masquerade and appear in their native costume, but retained the habits of good fellowship along with their dilettantism. In one group Sir Watkin Wynn, Sir Joshua Taylor, and three or four more are standing or sitting about a table at which Sir William Hamilton is explaining his book and exhibiting some of his Etruscan vases; in the other Lord Mulgrave, Sir Joseph Banks, Payne Knight, and others are discussing antique gems, but in both the wine is flowing with the flow of soul. Sir Joshua's portrait of himself, painted when he became a member of the society; West's, by himself, the best painted portrait we remember from his pencil; Payne Knight, Lord Dundas, and Sir Henry Englefield by Sir Thomas Lawrence, and Sir Walter Scott's friend Morritt, by Shee, complete the tale of the Dilettanti, and by those last named bring us to the persons and painters of the present century.

The present century series begins with a portrait of George, Prince of Wales, afterwards George IV., and ends with Arthur Hugh Clough. Lawrence takes the honours of the earlier years, of the later—well, we suppose they must be granted to his and Sir Joshua's successor in the academic chair, the present P.R.A. For the painting, it was a serious descent, but the persons make some amends. Of these, the number and range were quite startling. You could hardly think of a

man or woman who had won a name in any walk in life but there was the portrait. Perhaps there were too many, and so the mind lost in the crowd the power of distinguishing; but somehow they certainly looked less heroic, less like great statesmen and poets and historians, altogether, if we must say it, more prosaic and smug and commonplace than in our innocence we had fancied they would appear thus assembled in Walhalla. On consideration, we incline to lay the blame more on the painters than on the people. In the first exhibition we had the grand early masters striving with all their heart, and with that intense objective reality which is their distinguishing characteristic, to set before the spectator the very image of the man or woman, in face and form and clothing, exactly as they stood or sat on serious deliberative purpose to be represented. And so, neither better nor worse, you had them, according to the skill of the painter, fixed as by a sentient camera for ever. With their successors it was otherwise. True, they were great painters also, but they thought of themselves and their art as well as their sitters. They had to make a picture as well as a portrait, and it must be painted according to the laws of the schools as understood and felt by them, with more or less dash and *bravura*, or pickedness and conventionality, according to the nature of the man. But here again, from Vandyck to Lely and Kneller, we had in the first and second exhibitions good, sometimes noble portraits, as well as admirably executed pictures. The great portrait painters who did so much honour to our own school in the second exhibition worked after another fashion. They were all in a measure self-made artists, for even in the management of their colours they learned little from their teachers, and had to evolve principles and laws for themselves; hence, if not more absolute originality there was greater individuality in Hogarth, Reynolds, and Gainsborough than perhaps in any other three artists, certainly than in any other three portrait painters, working contemporaneously at the head of a nascent school. The practice of each was different, but in a great degree the result, as to the characterization of their sitters, was the same. Hogarth had a good deal of the realistic feeling of the early masters, but he was less severely objective. His faculty for observation of character was innate, and hence, whether consciously or not, he was always seeking to bring out distinctly the nature and, so to speak, idiosyncrasy of the person he depicted. Reynolds sought to do the same, but set about it in another way. His sympathy was all with intellect in man and woman, with natural sportiveness in children, and to catch the true expression of these in features and movement he brought his mind into the closest possible contact with their mind. A scholar with the scholar, a child with the child, he was able, with his unrivalled facility of execution and genius for colour, to produce the most brilliant pictures, and at the same time likenesses that remain in the memory as an absolute impersonation of the ideal man. Gainsborough had neither Hogarth's keen perception of character, nor the intellectual vigour of Reynolds, but his love of beauty was intense, he drew rapidly and gracefully, and was a charming colourist, whilst his hearty enjoyment of nature, and a certain honest homeliness that never forsook him, preserved him from yielding to

the flimsy superficiality and affectation that occasionally appeared likely to beset him, and which the patronage of the fashionable world had a tendency to encourage.

When a school is at its highest, the decline is always rapid. It was so, as this third exhibition too plainly shows, with the English school of portraiture. Opie and Northcote and Hoppner and Jackson retained a flavour of the departed. But it was imitative and hollow. The newer painters were men of rule. They painted men not as they actually were, but as they thought such men ought to appear. They put them in attitudes, smoothed their features, elevated their brows, made them look grand or fierce, or, more commonly, smooth and smiling. The consequence is, that in some hundreds of portraits of the most distinguished men of the past half-century you have a dreary level of common-place monotony, one half looking as bland and unmeaning as at a fashionable gathering, the other as though attitudinizing in the consciousness that they are the observed of all observers, or are being painted to be hung in a conspicuous place at the Royal Academy. From some of these later painters we have admirable heads, though hardly a satisfactory picture. Nothing in its way could well be finer than that of Flaxman by Jackson (553), and Phillips's noble portrait of William Blake (112), except in some technical qualities, ranked worthily with it. But here the men had no need to sacrifice to fashion. They were painting men of genius, and they were not painting for the market. That the power of painting an intellectual head is not yet wholly lost was evident from Samuel Laurence's portrait of Dr. Whewell (485), which possesses all the qualities of a good portrait, except colour. Raeburn's heads, again, are always excellent as studies. Roughly blocked out, the details all blurred as though copied from photographs taken out of focus, instead of from the life, the flesh tints suggesting the idea of the colours having been tempered with clay, and the rest of the canvas a dreary waste, Raeburn's heads, and, in a measure, those of his follower Watson Gordon also, represent the best specimens of the middle-aged intelligent Scotchman with enviable truth and vigour. The ladies of Scotland unluckily fared less favourably at his hands.

Among the earliest numbers of this modern series we had George the Third, Queen Charlotte, and several of their family, not, however, of much value as pictures; Pitt and Fox, as well as Mrs. Fox; Sidmouth and Ellenborough; the brothers Eldon and Stowell; Nelson, his father on one side, and Lady Hamilton on the other, with Collingwood, Troubridge, and Hardy close by; Lords Exmouth and St. Vincent; Sir Ralph Abercrombie and Sir John Moore; Sheridan, Erskine, and Whitbread; George Canning, with Romilly and Leonard Horner as his supporters; Charles Dibdin and the Rev. Rowland Hill; Robert Hall and Archbishop Sutton; Spencer Perceval and the Duchess of St. Alban's; Rennie, Soane, and Turner; Blake, George Colman the younger, O'Keefe, Bannister, and all the Kembles; Dugald Stewart and Sir George Smart; Richard Porson and Mrs. Opie, and fifty more as various, as famous, and as happily consorted, as a taste of the rich feast that lay before us.

Some of these were by Sir Thomas Lawrence, but more were by other and earlier men; and it was not till you reached the first and second bays of the Eastern Gallery that you saw Lawrence in his prime and in his glory. In these bays were some of his choicest, and some of what are reckoned his greatest works, selected from the rich galleries of Windsor Castle, Apsley House, and other of the noblest of our palaces and mansions. The royal pictures included few royal portraits, and, as far as we recollect, none from the famous series in St. George's Hall. The only one of Lawrence's royal pictures in these bays was an unhappy one for his reputation, Queen Caroline and the Princess Charlotte of Wales (225). Caroline, says the catalogue, is "standing tuning the harp, the princess holding up a piece of music towards her," though why the princess should take the trouble to do so whilst the harp is being tuned one does not see. But the whole is equally untrue and inconsistent. The queen is in an attitude she never could have twisted her not very supple self into, though she had been (as she seems to be) conscious that half London was looking at and admiring her. The attitude of the child is quite as theatrical; the whole arrangement is extravagant, whilst the colour is tawdry and meretricious beyond belief. However, it is the worst of all his bad pictures here, and we verily believe the worst he ever painted. It is said that Sir Thomas would assure the fair sitter who requested from him any suggestion as to colour of dress or style of ornament, that nothing could be more suitable than that she wore; indeed, he would add with his blandest smile and lowest bow, in no instance when painting a lady of high rank had he occasion to desire any change in the colour in which she presented herself, so natural and perfect in that region are the taste and feeling for colour. Of course when the sitting was over, he arranged and altered according to his own taste and feeling; but this picture looks as though, having come half to believe his theory, he had resolved for once to paint the portrait according to the royal scheme of colour. The pictures of statesmen are better than this of the poor queen. He was less on the strain to produce something striking, and the sitter hardly required so much in the way of refining. Lord Castlereagh (206) is a good and well-painted portrait from Lawrence's point of view, and so is that of Lord Liverpool (190); but Lawrence is only quite natural where he feels that he need not flatter at all. George IV. was annoyed at Sir William Curtis appearing as his double at Edinburgh, but Sir William was a serviceable man, and though the king would not mind quizzing the alderman, he was pleased to have his portrait, and Lawrence painted it for him (No. 210), one can fancy, quite to the royal wish; the grand civic rotundity and rubicundity being brought out in their amplest magnificence, slightly exaggerated, perhaps, as Macaulay said the salient features should be, to render the likeness striking, yet not caricatured, the man though somewhat mountainous, still gentlemanly, and the picture grandiose. The Peninsular and Waterloo heroes from Apsley House were some of them noble-looking men, and some were good pictures. Of these the best, perhaps, though a little dandyish, was the Marquis of Anglesea (205), or Lord Lynedoch (198). Wellington himself—the

royal portrait was not here—was timidly treated. The painter was evidently excessively anxious to produce a heroic countenance, and softened and modified feature after feature till all that was individual and distinctive was refined away, and you got in the place of the real man, a sort of abstract Duke of Wellington, the dignity no more than the fame being forgotten. The Duchess of Wellington (187), and the Marchioness of Wellesley, were favourable examples of the painter's female portraits, in which perhaps his greatest strength lay. And yet he could paint men well too. In those bays were half-a-dozen portraits of men worthy the pencils of the best of our portrait painters—Canning, Mackintosh, Abernethy, Sir Henry Halford, Sir Astley Cooper, Sir Humphry Davy—and all were works of merit. For them as pictures, indeed, without pretending to place them on a level with the works of his greater predecessors, much might be said; but as representations of the men it is impossible to regard them with satisfaction. The handsome face and fine form of Canning are done full justice to, but we can't believe that in his own study he would so have attitudinized, even though rehearsing a speech, as from the arrangement he appears to have been. Mackintosh's was the portrait in crimson gown so well known by the engraving. That the courtly physician should be treated in courtly fashion was perhaps but courteous; that the wrinkles in Sir Astley Cooper's handsome face should be a little smoothed, remembering his position and practice, we might also expect; but that rugged John Abernethy should be turned into a fine gentleman is too bad. Davy, unhappily, when he became the fashionable philosopher, became also a fop, and perhaps, therefore, it was a fitting Nemesis that he should be figured as one by Lawrence.

Wilkie, who knew and praises Lawrence's practice, tells us that "his likenesses were celebrated as the most successful of his time; yet none exalted so much, or refined more upon the originals—he wished to seize upon the expression rather than copy the features." There, in half-a-dozen words, is the truth of the matter. Lawrence had in him the making of a great painter, but he never mastered the grammar of his art, and never studied its principles. The portraits he drew in chalk, even when a boy, are full of delicacy, and grace, and show a remarkable facility in snatching a likeness. So did his early paintings. But he became the rage. Fashion, always and everywhere the deadliest enemy of genuine art, seized hold of him, and he succumbed. The demands on his pencil and society left him no time to repair the shortcomings of his early training. He painted to please; and to please he sought to cast a sheen of beauty over every female face, "to elevate and to refine" the features that seemed common-place, and to evade an intractable form by "seizing upon the expression rather than copying the features." Unhappily the example he thus set has been too faithfully followed—with the effect of lining the Royal Academy walls with such portraits as we have been in the habit of seeing there year after year, but which this exhibition ought—if painters have eyes to see and aptitude to understand—to put an end to for ever. That Lawrence could paint a head admirably, that of himself from the Royal Academy (353) would alone suffice to

prove. Of portraits by him, there were in this exhibition no fewer than seventy, so that ample materials were furnished for arriving at a correct opinion on his merits. A careful examination of half the number must have sufficed to disenchant for ever his warmest admirer.

Wilkie's full length state portrait of George IV., in Highland costume, is not only as described "of heroic size," but makes a painful effort to appear heroic. It was painted after the king's visit to Edinburgh, when Wilkie was full of the notions on tone and style imbibed during his tour in Spain, and is altogether the most absurd picture of royalty painted since Zucchero portrayed Elizabeth. The only tolerable portrait by Wilkie in the exhibition was one of himself when an unlicked cub; rough and unpolished, but with a look of honest unsophisticated genius. The third bay might have been designated the Scott Room, for in it were five portraits of Sir Walter, all more or less described by himself in his journal or letters, besides many of his kith and kin. The first (247), by Saxon, gave a good ordinary presentment of his early, every-day appearance; Raeburn's (252) more ambitious 6-foot canvas aims to show the poet in one of his fits of inspiration; Grant's cabinet full length (249) represents him in his study, surrounded by his books and dogs; Leslie's in his ordinary walking habit; and Faed's (257) at the head of his table, surrounded by his literary friends, to whom he is reading the proof-sheets of some forthcoming work. Lockhart, as painted by Lauder (253), has a sickly and jaundiced air, in curious contrast with the seemingly rude health of his old associate, Christopher North, in the neighbouring portrait (255) by Watson Gordon—a much more successful effort, by the way, than the Ettrick Shepherd (259) of the same painter, which hung close by, and which, oddly enough, was neighboured by our first, if not our best, of wood-engravers, Thomas Bewick (260). Bewick, however, was not the strangest to come into such company. Here, next to Scott, was Jeremy Bentham (twice over), and next him William Cobbett, followed closely by Dr. Lingard, while a little way off were Charles Mathews and Robert Owen. One of the Benthams (266) was by Pickersgill, and showed the philosopher in his study, not in in his well-known drab, but in a gay, claret-coloured coat; the other (250), by Watts, was posthumous, and described as "drawn from a wax model," but really drawn (or we are much mistaken) from the veritable relique of the man himself, as prepared by his friend Dr. Southwood Smith, and kept by him under lock and key for the edification of ardent Benthamites.

The next compartment was an aviary of singing birds, with a few, however, of another class mingled amongst them. Most prominent was Lord Byron by Phillips (285), painted in 1813, shortly after the publication of Childe Harold, when the poet was in the prime of his life and glory; it was the half length, so well known by the engraving, in which he appears with open collar, but enveloped in a cloak, the best as well as the most popular of the many portraits painted of him. Though a little scenic and over conscious, Byron had quite a masculine air alongside Campbell, as represented by Lawrence (284) in the portrait from the National Portrait Gallery, clever as that unquestionably is. Of Crabbe there were two portraits, the earlier and

best, because the simplest, by Pickersgill (289), the other later and feebler by Phillips (287). The latter was one of Mr. John Murray's collection of literary portraits so often referred to in connection with the parlour in Albemarle Street, when that was a select literary lounge. From the same series Mr. Murray also sent Lawrence's dandyish portrait of Thomas Moore (292), in which the little man is arrayed in a fur-collared coat, with waist pinched in to the dimension of a fashionable lady's; Robert Southey, by Phillips (282), book in hand and wearing the laureate badge; and Coleridge (296), also by Phillips, who, with the best will in the world, has failed to irradiate the heavy countenance with a ray of poetry or philosophy. Along with them, fitly enough, was the elder Murray himself (288) from the pencil of Mr. Pickersgill; and not far off his compatriot, Mr. Longman (304). Of Coleridge there was another portrait by Washington Allston (the only one from his pencil here) which it was interesting to compare with Mr. Murray's, but of which we need speak no further, as it may be seen any day in the National Portrait Gallery. The large portrait (from St. John's College, Cambridge) of Wordsworth (277), seated in poetic meditation under the shadow of a great rock, is one of Pickersgill's most ambitious efforts, but the thought was beyond the capacity of his pencil: the head, the only tolerable part of the picture, is engraved as the frontispiece to the edition of his Poems which Wordsworth published a few years before his death. Wordsworth, Southey, and Coleridge were shown together with Charles Lamb in one frame (275), in a curious set of pencil drawings made in their early and ultra-liberal days for Joseph Cottle by a Bristol artist named Hancock; and though not very skilfully drawn they well deserve engraving. Except Coleridge, which is a three-quarter face and turned to the right, they are all profiles looking left. All are singularly suggestive to those who are familiar with their lives. Southey wears very long hair, brushed back after the type of the heroes of the French Revolution, bringing out his beaked nose into great prominence; Coleridge wears his hair in like fashion, and has on an awkward-sitting coat with a huge collar; Wordsworth, on the contrary, has his hair cropped close, and looks very much like a farmer; whilst, what would hardly be expected by those who knew him in his later days, or took their idea from Cary's clumsy picture of him along with his sister (280), Charles Lamb appears as a spruce, uncommonly good-looking, and rather dandyish young fellow, by far the smartest and brightest of the four. Jackson's portrait of James Montgomery (poor Robert was a prophet without honour at South Kensington), though not one of his happier works, gave a good idea of the gentle-hearted but somewhat feeble author of the "World before the Flood"—a period to which he might properly have belonged. The other Sheffield poet—he of the 'Corn Law Rhymes'—found a place a long way off (611), and, with his spectacles in one hand and a roll of papers in the other, looked like a good quiet man of business about to make a speech at a chamber of commerce or a meeting of town councillors. Samuel Laurence managed to give more the air of a poet to Leigh Hunt (290), and John Hazlitt succeeded in making William Hazlitt (301) look an uncommonly

gaunt and unattractive personage; as Mr. Boxall did a very sleek one of Allan Cunningham (800). But besides all these, there were gathered in this one little room, William Godwin, by Northcote, and his Mary Woolstonecroft (whom that pleasant Irishman, Richard Rothwell, by a natural bull, has converted into a very fine lady); Taylor of Norwich and Horace Smith; that wild-looking prophet Edward Irving, and the tame Bishop Van Mildert of Durham; Sir Richard Phillips, and Francis Cary.

Samuel Rogers, a crayon drawing by Lawrence (312), was away from his brother bards in the next room, and again in advanced years (338, an oil painting by our own excellent landscape painter, John Linnell) in the room beyond, but in each he was, as in life he liked to be, in good society. Around him were Sidney Smith (Eddis's portrait of the comfortable-sized wit); Jeffrey; Archbishops Howley and Magee; Lords Melbourne, Spencer, Lansdowne, Durham, Holland, with half-a-dozen equally good whigs; and knights and commoners of all degrees, from Sir Herbert Taylor to Dr. Adam Clarke; whilst presiding in state over all were William IV. and Queen Adelaide—the latter a copy from Winterhalter, the former the Windsor portrait by Shee, with the king leaning on his sword as an old man leans on his stick, his face of chalk and tallow instead of flesh. Perhaps, but there was no room for it, we ought to have noticed that among this distinguished party were Stothard, Chantrey, Wilkie, and Lawrence, Gray, "the railway pioneer," poor Hartley Coleridge, and Sir Gilbert Blane:—but we must just make room to mention, for the benefit of the disciples of Lavater, that here were the fathers of the premier that is, and the premier that is to be—Disraeli the Elder (334), uncommonly unlike his remarkable son; the elder Gladstone (355) as much like his as a hard-headed, hard-worked, north-country man of business, without a spark of poetry, or a gleam of imagination (it is his portrait that says so) could possibly be: side by side the portraits of the two Gladstones would present one of the most striking illustrations of similitude in dissimilitude that could be readily cited.

So we might go on, lingering still over the earlier years of the century, before the portraits of Peel (of whom one by Lawrence is here, but not *the* one, the name of the present Sir Robert not appearing among the contributors); his busy critic Joseph Hume; Wilson Croker; Goulburn; Follett; Gifford of the 'Quarterly,' by whom were hung, we suppose in retributive justice, Keats and Shelley; Daniel O'Connell (by Wilkie, and by no means a flattering likeness); Fowell Buxton, Theodore Hook, Beau Brummell, and the like, but we must stop somewhere, and may as well stop now, content for the rest to mention a few representative men of the several classes who have more recently passed away from us, and whose names will serve to indicate how thoroughly the comprehensive character and intention of the collection was maintained to the last.

Of our recently departed statesmen there were, more or less worthily represented, Lord Palmerston (456), by Partridge, with his trusty henchmen, Lord Herbert of Lea (478), by Grant, the Duke of Newcastle (452), by Watts, and Sir G. C. Lewis (444), by Weigall. Of Cobden, there were two portraits, but neither satisfactory. There

also were the Chancellors Lyndhurst, Campbell, and Truro; the warrior lords Hardinge, Clyde, and Lyons; Sir Henry Havelock and Sir James Outram, all the Napiers, and a host besides. Scholarship and literature were represented by Thomas Arnold (511), the portrait engraved in his Life, said to be like, but having a most uncomfortable expression; Cureton (510); Hallam (408), as drawn by Richmond, with the smile and style of a man of society, and (493), as painted by Phillips, in more serious mood, with just the suspicion of a sneer in the curl of the upper lip; and Hallam's son, Arthur (494), more nobly painted "In Memoriam." Macaulay was represented by Mr. Richmond (403), smiling and complacent; common-place by Sir F. Grant; and in his study by Mr. Ward (538); but from neither could a stranger have gained any conception of the massive but vigorous and striking countenance of the living man. Mr. Ward's picture was a companion to one of Thackeray in his study (531)—one the statesman and historian, with folios and quartos in rank and file all in order about him, the other novelist, essayist, *raconteur*, sitting amidst journals, loose papers, sketches and *bric-à-brac*, writing with a sort of drawing-board desk on his knees, and a lighted cigar in his fingers. Elizabeth Barrett Browning, Mrs. Trollope, and Charlotte Brontë, brought up the light brigade of female poets and novelists, while Hannah More and Mrs. Trimmer led the heavier blues, and Elizabeth Fry the philanthropic legionaries. English science was well represented by men like Faraday, Brewster, Buckland, Hugh Miller and Robert Brown, but the painters had not made them particularly presentable, and they were little heeded in the throng. The great engineers and mechanicians who have covered the country with such marvels of skill and enterprise, the Stephensons, George and Robert, and the Brunels, father and son, with others of less popular, but scarcely inferior professional fame, were here, but the portraits hardly promised for their features the immortality their works have secured for their names. The painters mustered in tolerable numbers, from poor Haydon, at whom every witling now-a-days flings a little dirt, to Mulready, Stanfield, Eastlake, and Philip. Turner, here as everywhere standing apart, was separated by a wide space from his compatriots, and represented, in a couple of portraits of his own painting, in decidedly less glowing colours than if Mr. Ruskin had been the limner. Sir Charles Barry looked in Bradley's portrait as well pleased as though he had just received the commission for the new Houses of Parliament, whilst Pugin (618), by Herbert, in a sort of priest's garment, appeared as thoroughly uncomfortable. Recollections of another kind were called up by the portraits of Thomas Hood (594), of Douglas Jerrold (597, a very early portrait by Haydon's pupil, William Bewick), Walter Savage Landor (609), and John Leech (615).

At the end of the gallery the managers contrived a *coup de théâtre*, by way no doubt of setting forth in an impressive finale the catholic and comprehensive character of the exhibition. There were assembled in solemn conclave Keble of the "Christian Year," Joseph Sturge the Birmingham Quaker, patient-looking Pye Smith the learned Congregationalist, Father Faber of the Brompton Oratory; John Hannah the pride of the Wesleyans, Frederick Robinson of Brighton, Clay

the prison chaplain, and Father Mathew, the apostle of temperance. Above them were Bishop Blomfield, bland and beaming, and Principal Lee of Edinburgh, all the solemnity of Presbyterian severity marked in every line of his fine, stern face, square and hard and inflexible as his academic cap; while over all, the capital of the pyramid, and in the largest heroic proportions, was Cardinal Wiseman, in a blaze of scarlet, gold, and lace, crowned by a jewelled mitre, and surrounded by lights and the smoke of incense raised by kneeling and awe-stricken acolytes.

We have now run rapidly through the gallery, and here close our survey of the series of exhibitions. If, even examining them cursorily as we have been obliged to do, we have failed to convey a tolerably distinct conception of the exceeding value of the exhibition as a whole, the fault must have been ours. We regard the series as in many respects the most suggestive and instructive art-exhibition ever held in London. It enabled the visitor to read, almost without an effort, the history of portraiture in England, and supplied the materials for following up the study, if he desired to do so, into its minutest ramifications. To our young painters it has been a priceless beacon —pointing the way to the haven and indicating the rocks and shoals. An exhibition such as this, of the contemporary portraits of the great men of a nation, has in no other country been brought together, and surely we may venture without ostentation to affirm, would hardly in any other country be possible.

VI.—TECHNICAL EDUCATION AT HOME AND ON THE CONTINENT.

During the last year or two the subject of technical, or, more properly, scientific education, as applied to industrial production, has received a greatly increased amount of attention in this country, and has even led to the appointment of a Select Parliamentary Committee for the purpose of investigating the present condition of English technical education as compared with that existing abroad. For several years there has existed a widely-prevalent notion that in some leading manufacturing industries greater relative progress was being made on the Continent than in England. That such was really the case, that in several trades English productions had become superseded by articles of foreign make, was established by the Paris Exhibition of 1867, and the various official reports arising from the same. It is true that in the Exhibition English manufacturing industry was, as a whole, very imperfectly represented; still the display was sufficiently large to allow of several significant contrasts being formed, thereby awakening a desire for further and more systematic investigation. The results of later inquiries by such men as Dr. Lyon Playfair, Professor Leone Levi, and Mr. Samuelson, M.P., afforded still more forcible evidence respecting the formidable industrial competition with

which England was threatened, and the instructive fact "that those wonderful inventions which have made this country illustrious have ceased to be her exclusive property, and have to the fullest extent become the property of the world." The comparative rate of industrial progress in the United Kingdom and on the Continent during the last fifteen years is shown by the following table of exports, prepared by Professor Leone Levi * from official statistics:—

PROGRESS OF EXPORTS, 1851–1866.

Countries.	1851. Amount. £	Proportion per head. £ s.	1866. Amount. £	Proportion per head. £ s. d.	Per cent. of Increase.
United Kingdom .	74,488,000	2 14	189,000,000	6 10 4	153
France . .	46,325,000	1 5	135,000,000	3 12 2	192
Belgium . .	8,005,000	1 17	25,000,000	5 7 5	221

Other statistics show that Belgium considerably out-distances France, and that France is largely ahead of England, in the rate of manufacturing progress, so far as the production of textile fabrics is concerned. In the cotton manufacture the increase per cent. during the last fifteen years in this country was 148; in Belgium it was 292. In woollens, the increase per cent. was, in Great Britain, 169; in France, 192; in Belgium, 277. In the silk manufacture the increase per cent. was, Great Britain 16, France 96, Belgium 181.

In the "Copies of Answers from Chambers of Commerce to Queries of the Vice-President of the Council on Education,"† we find a lengthy, but by no means complete, list of articles made in Birmingham and the hardware district, which have become largely, in some instances wholly, replaced in common markets of the world by others produced in France, Belgium, Germany, and the United States. These articles include carpenters' tools, nails, lamps, locks, brass foundry, needles, guns, watches, clocks, glass, swords, jewellery, buttons, pens, cutlery, combs, optical instruments, japanned wares, gas fittings, spoons, mathematical instruments, and numerous others. The Batley manufacturers state that the shawl trade of Leeds has been absorbed by continental manufacturers; the South of Scotland (Hawick) Chamber of Commerce declares that the manufacturers of Verviers, in Belgium, have absorbed a large portion of the woollen trade of Scotland, by producing a superior article at the same price; the Dewsbury Chamber asserts that in the lighter and more fancy kinds of woollens Yorkshire is being superseded by the Continent. Mr. Jacob Behrens, while denying that the Bradford woollen trade has become "absorbed" by any other place or country, admits that "even in the production of articles in which we excel, we begin to be very hardly pressed by other countries, which, until lately, were very far behind us, particularly by Germany, Belgium, and France." The iron girders used in erecting the South Kensington Museum were cast in Belgium; a large pumping-engine, made in the north of France, was recently erected at a large Durham colliery. Mr. Joseph Whitworth, of Manchester, states‡ that "there has been a greater improvement in the general manufacture of tools

* Report on Technical, Industrial, and Professional Instruction in Italy and other countries, 1867.

† Parliamentary Paper, No. 168. 1868.

‡ Evidence taken before Committee on Scientific Instruction. 1868.

in foreign countries during the last ten years than there has been in this country, because ten years ago they were so far behind us." According to Mr. Mundella, Chairman of the Nottingham Chamber of Commerce, "during the last ten or a dozen years on the Continent the progress has been so much greater in proportion than our own, that they are close on our heels in most of our products, and in some they are quite neck and neck with us." Mr. Gill, a Scottish manufacturer, describing a visit made by him to the workshop of Theodore Wiede, at Chemnitz, stated that he saw in that workshop specimens of woollen-manufacturing machinery better, in the finish, material, and construction, than anything of the kind in this country.

These testimonies, taken in connection with others too numerous even to allude to, furnish sufficient evidence of the accuracy of the complaints respecting the new and powerful industrial competition to which this country has recently become exposed. This being the case, we are naturally led to institute an inquiry as to what constitute the causes of this rapidly increasing industrial improvement on the Continent. The general results of all the various investigations hitherto made appear to reduce these causes to two, namely, the amicable relations subsisting between capital and labour on the Continent, as compared with the hostile feelings engendered in this country by the increasing spread of trades' unionism; and the general absence of technical or scientific instruction among British artisans and others employed in our large industrial undertakings. The first of these causes was fully described in the "Companion" for 1868;* in the present article we shall confine ourselves to the question of Technical Education. But, first, it should be remarked that to some extent the term "technical education" is a misnomer, because, according to Professor Jenkins, "it can be used in the sense of learning a business, and also in the sense of getting scientific knowledge." The interpretation put upon the term by those employing it in connection with the improvement of our industrial arts is that of "general instruction in scientific knowledge." This distinction should never be lost sight of. It is one thing to master the technical details of a particular industry, and another to acquire a knowledge of the scientific principles governing the working of those details. Dr. Lyon Playfair states his belief "that, with the improvement of locomotion throughout Europe, the value of raw material as an element of manufacture is decreasing, while the value of increased skill and intelligence is increasing; that increasing skill and intelligence in manufactures become more important than any advantage which this country may possess in the abundance of raw material." Up to the present time we possessed a monopoly of manipulative skill, which enabled us, in various ways, to compensate for our lack of scientific knowledge. On the Continent there is no deficiency of scientific knowledge, and this, in conjunction with the manipulative skill which a study of our industrial processes has enabled the continental producers to acquire, amply explains the enormous industrial progress observable in France, Belgium, and other countries. Take, for instance, the various pro-

* "The Economical Results of Trades Unions Considered in Relation to the Paris Exhibition of 1867, and to the State of Capital and Labour on the Continent."

cesses connected with dyeing. The present position of the English manufacturers in connection with these is due to their indomitable perseverance rather than to their possession of scientific knowledge. "So much so," says Mr. Ripley, a leading Yorkshire manufacturer, "that knowing as I do the great want of scientific knowledge in England, it is perfectly astonishing to me that we do hold the position we occupy." The present superiority of the French merino trade, in which the English have been completely driven out of their own market is—according to the same authority—the result of greater scientific knowledge possessed by the French producers, and the greater care and attention given by them to the details of their operations. This superiority of industrial production will become immensely increased if the continental manufacturers continue to prosecute their operations in the same manner as they have commenced, especially "if they have men of scientific intelligence in their establishments, while we continue contented to go on with the men we now have, who, clever and willing as they are, are deficient in scientific training." "It is every day," observes Mr. Mundella, "becoming more and more a question of capital, skill, and science. The natural advantages which we possess seem to me to be gradually diminishing; we are approximating to a condition of equality which will, within the next twenty years, make it a mere question who is the most intelligent and can best adapt means to ends." Mr. Charles Hibbs, a working gunsmith of Birmingham, one of the selected workmen sent out by the Society of Arts for the purpose of reporting on the Paris Exhibition of 1867, states that while in Paris he was enabled to form a practical opinion with respect to the scientific attainments of French artisans. Their superiority was evident in the manner in which they executed their work. Some of the processes performed by them appeared to be very direct and simple, and were evidently direct applications of scientific principles.

It is scarcely necessary to adduce further evidence in support of the assertion that the amount of scientific knowledge possessed by the continental workers is considerably in excess of that owned by their English brethren. But what are the various modes by which this scientific training is procured? Here abundant testimony is forthcoming, showing the deep interest displayed by continental governments in the scientific education of their respective subjects. In France there are numerous technical and professional schools and institutes. Some of these are maintained by private enterprise, some by the communes, and some by the government. According to Dr. Lyon Playfair, "Paris has its school of engineers in the École des Ponts et Chaussées, and a more general school for arts and manufactures in the École Centrale des Arts et Métiers. In St. Etienne there is a school for miners, also a school for the manufacture of ribbons. At Mulhouse there is a school for calico-printing. At Lyons there is a school for gratuitous instruction to the children of the working classes, called the École de la Martinière, from the name of its founder, where chemistry, design, mathematics, mechanics, sculpture, and modelling, including workshops for turnery, joining, and iron-filing, are daily taught. Separate courses of lectures are also regularly given

on science applied to industry, at Bar le Duc, Besançon, Bordeaux, Dyon, Le Ouy, Nancy, Nantes, and elsewhere. Numerous industrial towns have public courses of lectures on design. Nîmes has a public course on dyeing." In the official Report of the French Commission on Technical Instruction, and the voluminous evidence taken before the same,* may be found ample details, not merely of the different means of imparting technical instruction in France, but also the numerous facilities enjoyed by other European countries. Mr. Samuelson, M.P.,† has also furnished some interesting information respecting the numerous continental modes of acquiring scientific instruction. He informs us that one of the most interesting schools in France is the École St. Nicolas, in Paris, which educates and teaches a trade to 1,800 pupils. The École Turgot and the College Chaptal are two other remarkable institutions. They belong to the municipality of Paris, in which city they are situated. The former of the two was founded in 1829, and receives children intended for every career, except the learned professions and the higher grades of the public service. The great technical school seems to be the École Centrale des Arts et Métiers. It has 500 pupils, and the number of applications for admission is always twice as great as the vacancies. So popular are the courses of lectures that in the year 1862-3 they were attended by as many as 176,000 hearers, the two theatres, capable of holding 1,060 persons, often being found insufficient to accommodate those desirous of being present. "Amongst 2,000 young men who left this school, it was possible recently to trace the career of 1,394. Of these, 247 were deceased; of the remainder, 480 were engineers or superior officers of railways; 54, mechanical engineers; 124, iron masters; 280, manufacturers of considerable eminence; 55, architects; 35, contractors for public works; 42, professors of the applied sciences; and the rest filled honourable positions in trade or in the service of the French or of foreign governments. The list of engineers included the names of Polonceau, Petiet, and others of equal reputation. Amongst those engaged in manufacture were found such men as Messieurs Dollfus, Koechlin, Salumberger, Montgolfier, and others of European reputation." The chances of procuring good and cheap scientific education seem to be open to the humblest artisan resident in any of the French industrial districts, but the French Government are not satisfied with this, it appears desirous of so improving their educational system that every Frenchman, be he what he may, shall be enabled to receive a certain amount, more or less, of scientific instruction at some period or another of his life. In pursuance of this object it is about to improve and extend its system of primary education, on the possession and efficiency of which the after-training of the student mainly depends. In all the schools, from the humblest to the most pretentious, the study of mathematics, physics, mechanics, and chemistry finds a place. In some localities the decaying colleges have been converted into science schools, a circumstance which may afford a useful hint to those who have the management of our educational charities.

In Belgium a very large amount of scientific instruction is afforded,

* Parliamentary Papers. 1868.

† Letter from B. Samuelson, M.P., to Vice-President of Council on Education. 1867.

being partly the result of the movement in favour of technical education commenced in Belgium after the London Exhibition of 1851. Before that period there were special schools attached to the Universities of Liege and Ghent, including schools of art, mines, and manufactures; industrial schools, schools of design, and similar useful educational agencies; but these were not sufficient for the ascertained wants of the country. This led to steps being taken for increasing the facilities for acquiring technical education, especially by artisans and others employed in Belgian industries, the different branches of study in the leading schools varying according to the special wants of the localities in which they are situated. Elementary mathematics, however, forms a leading feature in all. One peculiar form of industrial training in Belgium is that afforded by the apprentice-schools for weavers. These are found principally in Western Flanders. There are at present 68 of these institutions, with 1,528 looms in full activity, giving instruction to 1,857 apprentices. Since 1858 as many as 27,373 workmen have left the workshops fully instructed in the best mode of weaving, and well supplied with tools, the cost of which was deducted out of their earnings. The official reports show that not only have these schools done much to improve the morals both of parents and children, but that they have occasioned an almost utter disappearance of mendicity and vagrancy in the districts in which they are situated. Extensive, however, as is the diffusion of scientific education in Belgium, it is far from being what it might be, the almost uncontrolled employment of children and females in many of the great industrial establishments being found frequently retarding the proper development of primary education.

Of all countries, Switzerland is apparently the least favourably situated for successfully carrying on manufacturing industries. "An inland state," remarks Dr. Lyon Playfair, "with but limited natural capacities, and on all sides surrounded and intersected by almost inaccessible mountains, what chances can she possess with the great maritime powers of Europe? Yet she stood well at each international exhibition, and she successfully competes with French and English manufacturers in her silks and ribbons." The solution of the puzzle is afforded by the fact that her people are educated and industrious, most of the Swiss cantons having rendered primary education compulsory on all children residing within their limits. Of the industry exhibited by the Swiss we have numerous instances. The value of the embroidery manufactured in St. Gall and the surrounding district is nearly 1,500,000*l.* per annum. "Every young girl tending her flock," says M. Louis Reybaud,* "many a boy even, passes the needle over a tambour, on which a piece of muslin is carefully wrapped, or works, in crochet, a curtain border. Everywhere the work goes forward; on the threshold of cottages, under the shelter of an arbour, in the meadows, in the woods, the embroidery frame is an inseparable companion; here suspended from the branches of a tree, there fastened to the yoke of the oxen, in motion or at rest it is ever within reach." The technical instruction is afforded by means of industrial schools and colleges, industrial evening schools, and federal polytechnic

* "Revue des Deux Mondes," quoted by Mr. Samuelson.

schools. To these latter are attached distinct schools of architecture, engineering, mechanics, chemistry, forestry, design, mathematical, and physical sciences, &c., as well as preparatory courses on mathematics. There are also several special schools, such as that in Geneva for instruction in watchmaking, and that in the canton of Tessin for silk-weaving. In every respect, says Dr. Playfair, "technical education in Switzerland is abundantly supplied, and at terms sufficiently low to benefit all classes of society." An illustration of this is furnished by the fact that the canton of Zurich, with a population somewhat less than that of Leeds, possesses an university, cantonal school, training school, deaf and dumb school, veterinary school, 66 secondary schools, and 370 primary schools, besides the federal polytechnic institution. Private schools, as they exist in England, are scarcely known in Switzerland.

In Italy, the value of scientific education has been appreciated for centuries, such appreciation forming the basis of the universal renown once enjoyed by Italian manufactures, and yet possessed by Italian art. The industrial decadence of Italy has been occasioned by political causes, but under the new *régime* strenuous endeavours are being made by the Italians for the purpose of recovering their former industrial prestige. With this view much has recently been done to provide a more complete system of education, both primary and secondary.

In Germany, technical instruction has been brought within the reach of the humblest individual: as in Switzerland, elementary education is almost universal. "Nowhere else," says Mr. Samuelson, "is the art of developing and informing the minds of young children understood and practised with such success as in Germany." In Prussia every child between the ages of 6 and 14 must attend school, but after 12, and on proof of a certain degree of elementary knowledge, children may be employed in labour, on condition of continuing their attendance at school a certain number of hours weekly. In Westphalia no child under the age of 16 may work underground. In consequence of the prevalence of primary education, the need for evening classes and Sunday schools is less than in most other countries. In the large cities, such as Vienna, Prague, Berlin, Munich, Nuremberg, Baden, Dresden, and Carlsruhe, the amplest possible facilities exist for procuring, at an extremely cheap and easy rate, scientific instruction of the highest class. Nowhere in the world is such attention given to scientific industrial education as in Germany. "Würtemberg, a comparatively poor inland state, with less than 3,000,000 of inhabitants, without minerals and without navigable rivers, has expended 45,000*l.* on its Polytechnic Institute." The relative positions of England, France, and Germany in the matter of higher scientific instruction is illustrated by the following facts. In England the average number of students annually entering the Royal School of Mines, with the view of becoming associates, is, including the exhibitioners, about 14; the number entering as occasional students being 108. The metallurgical and chemical laboratories are attended by 100 students. A few young men attend the technical classes at King's College. "Add to these," says Mr. Samuelson, "the pupils of the School of Naval Architecture, a proportion of those at Sandhurst, and a small

number of technical students at the Universities of Glasgow, Edinburgh, and Oxford, and we shall have given a fair representation of the higher technical education of this country." Let us now turn to France. That country, with its population of 38,000,000, has two high-class technical schools—the École Polytechnic, and the Central École—which alone furnish from 350 to 400 young men yearly for the scientific departments of the army, and for the higher industrial positions. This is greatly in advance of England, but immensely below what is being done in portions of Germany and Switzerland. "Prussia, Baden, Würtemberg, Saxony, and Switzerland," says Mr. Samuelson, "numbering together about 32,000,000 of inhabitants, besides the great chemical laboratories of Heidelberg, Giessen, Berlin, and Bonn; the mining academies of Berlin and Freiburg; and the various military technical schools, possess the following polytechnic institutions of the first class:—

"Berlin	with	370	regular	pupils.
Carlsruhe	„	800	„	„
Stuttgart	„	450	„	„
Dresden	„	270	„	„
Hanover	„	430	„	„
Zurich	„	550	„	„
		2,870		

besides numerous occasional students, educated at a total cost to the States of 40,000*l*. per annum, in addition to school fees, amounting to 9,800*l*., or an average annual cost of nearly 18*l*. per pupil to the states, and of 3*l*. 10*s*. to the pupils themselves." As we become acquainted with these facts, a few only of many to which we have not space to allude, can we continue to wonder at the greatly accelerated rate of industrial progress on the Continent? As Professor Jenkins truly remarks, although up to within the last few years we have had almost a monopoly of the experience which enabled us to do without any great amount of theoretical knowledge, the foreigners are now getting more and more practical experience, especially the Germans, whose high technical education is fast rendering them our most formidable competitors. In that country the simplest artisan, no less than the manager and the employer, appears to possess some degree of scientific knowledge.

In this country it is otherwise. As in Germany, France, and elsewhere, many of our foremen and small manufacturers have risen from the artisan class, owing their elevation to their superior natural aptitude, steadiness, and industry. The education of these, like that of the workmen from whom they have sprung, has been procured in elementary schools, but owing to the defective character of the instruction imparted in some of these schools, and the early age at which, until the passing of the various Factories Acts, children were sent to work by their parents, such education was generally of the poorest description, too often little better than none at all. Consequently a very limited proportion only of those so educated have been enabled to acquire proper scientific instruction at a later period. The whole tenour of the evidence taken before the Select Committee on Technical Instruction confirmed the assertions which have repeatedly been made, by those most qualified to offer a reliable opinion on the

subject, to the effect that it is absolutely necessary that a sound and efficient system of primary education should precede any attempts at increasing our present means of imparting scientific instruction. It is rather to the want of primary education on the part of large masses of our artisan population, than to any real deficiency of aids to technical instruction, that the acknowledged inferiority of our foremen and artisans generally, in the knowledge of the various scientific principles connected with their respective industries, is chiefly to be ascribed. In Nottingham nearly 50 per cent. of the operatives employed in the large factories cannot read even the simplest paragraphs. Out of 200 or 300 brickmakers employed by a single firm in the same town only two persons could read, and these were the sons of foremen. During an inquiry made by Dr. John Watts, some few months since, for the late Educational Conference at Manchester, and which inquiry included about 92,000 inhabitants residing in a single portion of the city, 24·8 per cent. of the youths from 14 up to 20 years of age were found unable to read, while no less than 58·4 were utterly unable to write. Mr. Robert Rumney, an extensive chemical manufacturer at Manchester, explicitly declares that there exists a general deficiency of primary education among the Manchester operatives, more so than in the country districts. A mining school started at Wigan in 1859 failed, according to Mr. Iselin, from "want of primary education in the classes for whom it was designed." This deficiency has proved a serious obstacle in other places. Mathematics form an essential portion of technical instruction, but, from want of primary education, the majority of working men "are not in a position to comprehend a rigid mathematical proof, or even to understand the meaning of a mathematical formula." In the Art School at Halifax the want of an elementary knowledge of the first principles of geometrical drawing has formed a great barrier to the success of artisan students. The Committee of the Wakefield Mechanics' Institute told Mr. H. H. Sales that the artisans of their town were "unable to carry on their education owing to their deficiency of primary education." In Birmingham there are several metallurgical trades, in the various processes of which no improvements whatever have been effected during the last fifty years. This is attributed by Mr. G. Lloyd to the prevailing deficiency of education. "We have not," says he, "been sufficiently alive to the importance of elementary or primary education." Hence the general supineness with respect to the necessity for scientific instruction. Even among the foremen and managers employed in large establishments, the absence of primary education is often painfully conspicuous. Mr. Whitworth was led by his personal experience of this disagreeable fact to endow the scholarships bearing his name in mechanical science. In the course of his business he often found it necessary to raise a superior artisan to the rank of foreman, but sometimes the man was found to be so deficient, even in reading, writing, and arithmetic, that it became impossible to continue him in his new position. The man had, therefore, to return to his former post as a mere workman. Mr. Mundella relates that he once saw a workman brought up to sign a contract to superintend a number of miners in Russia, and that the man signed it with a cross. Mr. Mundella

said, "Cannot you write your own name?" "No, I cannot," was the reply. Mr. J. Chance, the eminent glass manufacturer of Birmingham, alluding to the defective condition of artisan knowledge, stated that he advocated a good sound elementary education for working people, "not so much as giving any positive advantage, as in taking a difficulty out of the way; that is to say, giving the workman that without which he cannot rise at all." Indeed, there exists a remarkable unanimity of opinion in this respect, most of those who have been examined on the subject evidently sharing Mr. R. Rumney's belief that "science might be left to take care of itself, if we once got good primary education." What might be done in the matter of elementary education is shown by the example of the schools at Halifax, Oldham, and a few other places, which at present are exceptional instances. It seems to be generally agreed that the tendency of the Revised Code has been to diminish the efficiency of elementary education, but certain fresh modifications have been recently made for the purpose of meeting the complaints of those engaged in the work of primary education.

The manner in which the deficiency of scientific knowledge on the part of foremen and artisans affects our manufacturing interests, has been illustrated in various ways. At Bradford, one of the staple industries is the manufacture of mixed fabrics, formed of cotton, silk, mohair, alpaca, and other materials. At first, these were dyed separately before being used; afterwards, when the mixed materials were put into the dye-pan, the cotton part was dyed previously, and the worsted was dyed in the pan, both materials, in their woven form, being put in together. This is, admittedly, a comparatively expensive and complicated process, yet although the best and most experienced practical dyers in this country are employed for the purpose, there are none who are known to possess the scientific knowledge which is absolutely essential to produce the work at the cheapest rate. A considerable portion of the hosiery made at Nottingham is sent to France for the purpose of being dyed. It is the same with English silks. It is said that tons of silk are regularly forwarded from Nottingham, Leicester, Derby, and elsewhere, to Lyons for the purpose of being dyed, simply because of the French dyers possessing more chemical skill than do their English brethren. Mr. Mundella states that he has seen reports from the Lyons Chamber of Commerce, in which that body attribute the supremacy of the French dyes entirely to the establishment of their chemical schools in Lyons. The Lyonnaise manufacturers declare that the English suppose the superiority of the French dyes to arise from some peculiar property of the water used, and the greater amount of sunshine procurable in Southern France; but that it was nothing of the kind, it being simply the result of superior chemical knowledge. Mr. Ashwell gives an instance of the absence of scientific knowledge in the Nottingham bleaching trades. One of his men is constantly using solutions of soda for bleaching purposes. Mr. Ashwell asked this workman the meaning of the word "alkali;" but the man did not appear to understand it. When asked, further, the operation of alkali on cotton in a boiling solution, and also its action on wool, the workman did not know; he simply

answered, "It fetches the dirt out of the cotton." Being pressed as to its action on wool, he could give no reply. Now, being perfectly ignorant of chemical analysis, this workman could not, of course, control or test the strength of the ingredients used by him. The inevitable results of such ignorance are displayed in the prevailing large amount of preventable waste and error. Mr. Birkin, of Nottingham, states that the firm to which he belongs are in the habit of employing silk dyers and stainers, but that it is almost impossible for them to find a man who has any knowledge whatever of the constituent parts of the colours which he uses, or the most outside knowledge of chemistry. "It is all done," he remarks, "by guess-work, and we suffer in that respect, because the colours are obtained by a process of matching, putting on a little more or less where it seems wanted, instead of coming directly to the result, as the men would do if they had a good chemical education." Mr. J. Kitson, junior, of Leeds, while stoutly maintaining the superiority of the English iron manufacture, admitted that he did not know a single manager of iron-works in the West Riding of Yorkshire who understood the science of chemistry. At Sheffield, the work which should proceed from the knowledge of science is done by mere rule of thumb. "The father has taught the son from generation to generation, no scientific principle being thought of in doing the work." Mr. H. H. Sales was told by the managers of the Sheffield Mechanics' Institute, that "the working man cares nothing about technical education in the manufacture of bronzes; he knows nothing of the scientific composition of the electric bath; all is left to chance." The same authorities also remarked that "the apathy respecting scientific education is not due to want of money, but want of intelligence." Mr. W. C. Aitken, a gentleman extensively connected with Birmingham manufactures, states that, out of some 7000 persons engaged in the Birmingham brass or brass foundry trade, there was not one, to his knowledge, capable of making an analysis. "Dipping is a manipulatory process, which consists in immersing brass in nitric acid, for cleansing or finishing purposes: there is not a single Birmingham dipper who could tell, if he is not successful, the cause of the failure, from any scientific knowledge of his own." Mr. J. Bragg, a Birmingham jeweller, gives several very striking instances of the waste and loss occasioned to his trade, especially in the refining and alloying processes, from want of even elementary scientific knowledge on the part of the artisans. "If the man," said he "understood the laws of heat, a great deal of our spoiled work would be avoided." "They do not know, for example," he continued, "that heat requires a certain time to be conducted round a coil of wire, and they set to work with a blow-pipe and burst the coil. The smallest elementary knowledge of the laws of heat would teach them that they must allow it time to travel round the coil, or it will spring open and burst." Mr. Bragg produced several specimens of enamel made at Geneva, which he said could not be manufactured as cheaply in this country, because we do not possess the requisite scientific knowledge. To the same cause also he attributed the inability of the Birmingham manufacturers to get rid of the roughness produced by the little bits of iridium contained in

the scraps of metal procured by them from the steel-pen makers. In like manner, the lack of scientific knowledge occasions not merely a multiplicity of useless scientific inventions, especially in chemistry, but also considerable difficulty in practically employing scientific inventions of acknowledged value. As remarked by Dr. Frankland, a scientific invention must be scientifically applied, or else it will be almost certain to fail, at all events commercially. "One of the greatest obstacles to successful invention on the part of men of science who are outside manufactures, consists in the impossibility of getting their processes fairly carried out in the chemical manufactures. If they themselves turn manufacturers, there is little difficulty; but at present, there are no points of contact between the purely scientific man and the purely mechanical workman in the manufactory."

This deficiency of scientific knowledge prevails quite as much among the foremen as among the men superintended by them. Mr. Cochrane, a member of a large colliery and ironworks firm in the North of England, says that "even what are called good foremen are capable of such gross mistakes, from what he might almost call their ignorance of primary education, that it is really pitiable to see a man in the position he holds, and yet capable of such mistakes—mistakes which arise from utter ignorance of the mere elements of science." In the machine shops of the Midland Counties, such a thing as a foreman who is also a good draughtsman is unknown. Some of those who have for years enjoyed the rank of foreman can scarcely write their own names. When they wish to explain to the men under their command the manner in which certain given kinds of work is to be executed, they are placed at a considerable disadvantage. As Mr. Mundella very truly observed, the work is entirely brought out by a series of trials and errors. "They make efforts, and if they fail they try again." When it is remembered that many of our manufacturers were originally foremen, their general apathy to scientific education becomes more easily understood. A considerable amount of this real or seeming indifference arises also from purely selfish considerations. For instance, there exists on the part of the owners and agents of mines a prejudice against what they call "kid-glove workmen," that is, scientifically-educated working-miners. The origin of this prejudice is, according to Mr. R. Hunt, keeper of the Mining Records, "a fear lest the young men should grow up with more intelligence than they themselves possess, and push them from their places;" that if the miners increased their knowledge, they would be spoiled as hewers of wood and drawers of water. When Mr. Hunt organized, some nine years ago, the Miners' Association in Cornwall, several of the largest mine proprietors told him that he was doing considerable mischief, because by educating the men he would render them so vain that they would refuse to work. This prediction has not, however, been verified, most of the students still remaining as working men. A large proportion of our mining population are absolutely ignorant of the principles of the safety-lamp, also of the laws of ventilation. Were they duly instructed in the various branches of science bearing on their trade—for instance, mine-surveying, the laws of motion with regard to the passage of currents of air or water, or the ordinary

principles of mechanics and the like—the number of accidents in mining and colliery districts would become greatly diminished. Mr. W. H. Ripley states he experienced considerable difficulty in introducing superior artisans into his establishment at Bradford. This difficulty was occasioned solely by prejudice on the part of his foreman dyer, who thought it would be interfering with his, the dyer's, modes of operation. Sometimes, however, the want of scientific knowledge is so manifest to all concerned, that great eagerness is displayed on the part of employers to procure continental artisans or foremen possessing the requisite qualifications. In some of our large industrial establishments the more lucrative and important positions are held by foreigners.

Illustrations of the great value of technical, or more properly scientific, education to the English artisan, no less than to the employer, are abundant. The difference between the man so educated and the ordinary workman is well described as consisting in the former possessing better mental instruments to work with. He is enabled to unite science with practice, and consequently proves a better man and artisan. His money value becomes proportionately increased, far beyond the dreams of those who place faith in trades-unionist schemes for raising the current rate of wages. There exists no real reason why our working-men should not avail themselves of the demand for skilled labour, if, instead of wasting their time and means in the prosecution of labour disputes, they applied themselves to the work of supplying, as far as possible, their various educational deficiencies. They possess no lack of real aptitude. Professor Tyndall, alluding to the scientific lectures delivered by him to working-class audiences in Jermyn Street, tells us how he has purposely looked round the benches in search of a yawn, without once meeting that discouraging symptom. He often receives letters, which are perfectly touching, in the name, perhaps, of twenty or thirty workmen employed in some particular factory, expressing their intense disappointment at not being enabled to obtain tickets for his lectures; and though he is not enabled to examine these men, yet, "if there is any trust to be placed in human sympathy, or in one's observation of the human countenance, we may safely infer that these working-men get a good deal out of the lectures." Even with our present defective system, a good scientific education is not beyond the reach of the workman who, possessing a fair amount of primary knowledge, perseveres in his attempts to reach the higher branches. At the present time, in Botallack Mine, near the Land's End, is a young working miner who recently carried off the gold medal in Mineralogy in the examination of the Department of Science and Art. It is such men whom employers naturally select for the post of foremen. They might not always be so fortunate, but they would always stand in the foremost ranks of the artisan community. Mr. Kitson, describing an iron-works manager, procured by him from France, said that the man in question was a good mathematician and a good chemist. He understood the theory of mechanics, as well as the practice of it; he was also a thorough draughtsman. As a metallurgist, and in his knowledge of chemistry, he was superior to all the other managers. The value of such men in our industrial processes is incalculable. It has

been stated by a competent authority, that it would be worth the while of the Birmingham jewellery trade to give 2000*l.* per annum to a man like Dr. Percy, for the purpose of inducing him to reside in that town. A more scientific manner of conducting the various processes in the jewellery manufacture would lead to greater economy and cheapness of production. One instance will suffice. By an improved scientific method of filtration, the water formerly thrown away, after being used for gold-washing purposes, has been made to save large sums to those who have acquired a knowledge of the new process. Another instance, even more suggestive, is furnished by Dr. Percy. He states that one of the most interesting, difficult, important, and novel processes in metallurgy arose in Birmingham about the year 1840: hitherto the Swedes and Germans thought they had that process entirely to themselves, but it was taken up by a friend of his, who laid the foundation of the system now generally employed in the town. The process alluded to is connected with the manufacture of nickel, and its introduction has completely revolutionised the Birmingham trade in nickel and cobalt. Indeed, Birmingham appears to require much more special knowledge of chemistry than is generally supposed. Dr. Percy states that the trades of Birmingham which depend on chemistry are numerous and very important; in fact, there is scarcely a manufacturing district in which a knowledge of chemistry would not prove advantageous to the majority of trades carried on. The two great chemical inventions made in this country during the last twenty years—the manufacture of paraffin from coal, and the production of beautiful dyes from coal tar—were made by men who had been specially trained in chemistry. These inventions have not only very largely increased the manufacturing income of the country, but have laid the foundation of new and profitable industries. In Lancashire, the residence of such men as Dalton, Thomson, and Angus Smith has proved of enormous advantage to the cotton-manufacturing interest. Many of the foremost men connected with our national industries owe their position to the scientific knowledge possessed by them. Mr. E. J. Reed, chief constructor of the navy, received his technical training in the dockyard school at Sheerness, and afterwards in the school of mathematics and naval construction at Portsmouth. Mr. Perkins, the inventor of the aniline dyes above referred to, obtained his scientific education in the City of London School. Mr. William Bain, a Scottish iron-manufacturer, was originally an artisan, his present position being principally the result of the scientific education procured by him in the Watt Institution in Edinburgh. Such instances might be largely multiplied, each showing the immense advantage enjoyed by the artisan or employer possessing a tolerable share of scientific knowledge, over those not so favoured.

But it may be inquired, "What means exist in this country for imparting scientific instruction to those who desire it?" This question can be answered more satisfactorily than many suppose. If our various systems of scientific instruction are less numerous, available, or comprehensive than are those in use on the Continent, still they are far superior, both in capability and results, than they generally

obtain credit for. The subject of technical education has never been lost sight of in this country. Nearly a hundred years before the establishment of our schools of design, Sir Matthew Decker was found recommending the formation of national drawing schools as a means of enabling the English artisan to compete more successfully with those of the Continent. The importance of scientific knowledge to the British workman was early perceived by Dr. Birkbeck, who endeavoured to impart scientific instruction, by means of evening classes, to adult workmen. The great amount of success experienced by him in his first attempts led him to devote a large period of his life to the development of this idea. These classes ultimately led to the formation of Mechanics' Institutes, intended expressly for the scientific education of the industrial classes. During the years 1828, 1829, and 1830, no less than 400 of these were established. Since then the number is stated to have increased to something like 4000. In Scotland they succeeded very well, because in that country primary instruction is more disseminated among the people than in England; the workmen who availed themselves of these institutions being thereby better enabled to follow and profit by the various courses of lectures. The Watt Institution at Edinburgh, and the Anderson Institute in Glasgow, have each rendered good service. The former is a working man's college. It was founded in 1821, and the attendance of students is larger than in any other Edinburgh educational institution, excepting the University. Among the students here was John Kerr. He was a working tinsmith, but is now the manager of extensive gasworks in Copiapo, in South America. Mr. James Newland, borough engineer of Liverpool, and Mr. Smith, head mathematical master in George Heriot's Hospital, Edinburgh, were both educated in the Watt Institution. There are many other similar instances of success in life of those trained in this artisan college. Thus, according to Dr. S. Macadam, one pupil, who was a cabinet-maker, became schoolmaster in the parish school of Preston Pans; another, a tailor, received a responsible appointment in a large engineering establishment in Glasgow; another, a tinsmith, became a schoolmaster in Perth; another, a basket-maker, was promoted to be manager of the asylum for the deaf and dumb in Belfast; another, a tailor, became a private secretary to a nobleman; whilst another, a mason, was appointed an inspector on one of the English lines of railway. James Nasmyth, the inventor of the steam hammer, was educated at the Watt Institution. The Anderson Institute at Glasgow appears to resemble the Watt Institution at Edinburgh. The science classes have been under the direction of Dr. Birkbeck, Dr. Ure, Professor Graham (now master of the Mint), and Dr. Penny. In the chemistry class the number of students varies from 400 to 500, who attend courses of from twenty to twenty-five lectures. These students are almost exclusively working men. In England the general deficiency of primary education led to the failure of many of these useful institutions. The teachers had scarcely begun to talk of science when they found their class-rooms almost deserted. Dr. Birkbeck and his friends, so far as this country was concerned, were considerably in advance of their age. The popular mind was not prepared.

In the North of England, however, especially in Lancashire, the Mechanics' Institutes have proved extremely useful, and have tended largely to develop the mental capabilities of the operative class resident in that portion of the kingdom. An illustration of this is afforded by the fact that the sale of mathematical works in the northern counties greatly exceeds that in the southern. The existence of the Lancashire Mechanics' Institutes has largely assisted the progress of the cotton manufacture, and other great industries peculiar to the districts in which they are found, not a few of the leading employers, managers, foremen, and superior artisans being indebted wholly to these institutions for the scientific education possessed by them. Of late years the increase of primary education among the working classes has tended to revive in some measure the popularity and usefulness of these institutions, the movement being considerably accelerated by the assistance afforded by Government in the formation of science and art classes. At first there was some objection to the latter, but it has since been overcome. At present the deficiency of primary education among large sections of the industrial population forms the only hindrance. The Lancashire Union of Mechanics' Institutes comprises 123 such institutions, all of which are situated in Lancashire and Cheshire. Most of these are in connection with the Society of Arts; many have Government classes of science and art Each year three examinations are conducted by the Union. The first is purely elementary, the papers being supplied by the Society of Arts, the subjects being reading, writing, and others of a primary character. The second is the regular examination of the Society of Arts, the examination papers being forwarded to London for the awards. The third is the Government science examination. In addition to these there are special prizes offered by gentlemen taking an interest in the Union. The progress of the Union is illustrated by the following figures:—

Certificates issued.	1864.	1865.	1866.	1867.	1868.
Elementary Examinations .	72	171	373	477	588
Society of Arts „ .	247	281	272	379	414
Government Science „ .	518	786	633	1019	Not complete.

The numbers under instruction in 1867 were 2,159; in 1868 they were 2,768. In one department, that of geometrical drawing, the number of students is 1,388, the whole of the science classes in England furnishing only 2,846, so that nearly half belong to Lancashire. In 1867, of the 123 institutes in Union, 51 sent in pupils for examination; in 1868 the number rose to 75. The total number of science schools in England and Wales is 210. Of these Lancashire possesses 60. The number of students attending the schools is 9,480, of which 2,520, or more than one quarter, are contributed by Lancashire. In Scotland there are 15 schools, with 2,611 students. In Ireland the number of schools is 76, the students numbering 2,870. In Yorkshire the number of science classes assisted by Government is comparatively few, not exceeding 16, with 476 students. This arises principally from the unconquerable predilection of the Yorkshire people in favour of the voluntary system, not from any real want of aptitude among the artisan population. That the Yorkshire artisans are not,

providing they be possessed of the requisite amount of primary education, incapable of receiving scientific instruction, is shown by the success of the Working Men's College at Halifax. The students belonging to that institution are nearly all workmen. The classes are held in the evening, after work-hours, the number of students being 198. A common working dyer, attending the chemistry class here, gained so largely in knowledge and experience that he has since become a manufacturer of aniline dyes for the use of operative dyers. In a letter to his teacher, Mr. Jarmain, he says: "The instruction has been of incomparable service to me. The manufacture in which I am engaged could not be carried on successfully without a knowledge of the laws of chemistry." Another student, a clerk, says: "It has given me a knowledge of various processes used in our manufactory (carpet-makers, dyers, and worsted-spinners) which I should not have possessed but for that instruction. My knowledge of dyeing and the principle involved in the washing of wool has enhanced the value of my services to my employers." The success of the science classes at Halifax has occasioned the formation of similar classes at Huddersfield, which are attended by 700 students. At Bradford a subscription list has been opened for the erection of a school of science and art, to cost 50,000*l*. The Bristol Trade School and the Hull Navigation School have each been cited as examples of the successful introduction of science teaching of a superior kind into elementary schools for artisans.

The various science classes at Halifax and elsewhere are in direct communication with the Department of Science and Art at South Kensington. This ever-energetic department seems to have spread a network of these classes over the whole kingdom, the number increasing annually in magnitude. The action of the Government in this direction appears to have been largely influenced by a memorial presented in 1856 to Earl Granville, then president of the Council of Education, and the Right Hon. W. F. Cowper, then vice-president of the same. This memorial purported to emanate from working men belonging to the Royal Polytechnic, the London Mechanics', and other institutions in London, and stated that the memorialists were of opinion "that the industrial progress of the Continent and America must, in a great degree, be attributed to the better education of the artisans of those countries." They therefore respectfully suggested that the elements of the natural sciences, political economy, physics, chemistry, and drawing, should be taught in our elementary schools. "From the want of such instruction," said they, "men fall into serious social errors; and labour, instead of being an enlightened and intelligent application of principles, is but too often a dull round of monotonous drudgery." They thought that "a closer relationship should be established between the elementary schools and mechanics' institutes, so that the instruction given at the one should always be regarded as preparatory to that to be continued at the other." The assistance of the Government is given to two forms of teaching, scientific and artistic. The first includes practical plane and solid geometry, machine construction and drawing, building construction *or* naval architecture and drawing, elementary mathematics, higher

mathematics, theoretical mechanics, applied mechanics, acoustics, light, heat, magnetism and electricity, inorganic chemistry, organic chemistry, geology, mineralogy, animal physiology, zoology, vegetable physiology and economic botany, systematic botany, mining, metallurgy, navigation, nautical astronomy, steam, and physical geography. The second comprises drawing, painting, modelling, and designing for manufacture and decoration. Classes for the study of these subjects may be formed in any part of the United Kingdom, providing a committee, not consisting of less than five persons, be formed for the purpose of undertaking certain duties of superintendence in connection with the same. The assistance afforded is in four shapes—payments to teachers on results of examinations, medals and prizes to successful students, grants to schools in aid of purchase of apparatus, and royal exhibitions and free admissions to the Royal School of Mines in London and the Royal College of Science in Dublin. The payments to the teachers vary from 1*l.* to 5*l.*, according to which of the five classes the student may be placed in. Additional aid in the shape of small scholarships is also given. No payments are made for students not belonging to the artisan class, or whose annual income exceeds 100*l.* The examinations take place in May, the examinations in each subject being held throughout the whole kingdom the same evening by means of printed examination papers. The steady success of these classes is exemplified in the following table:—

	Number of Schools.	Number under Instruction.
1860	9	500
1861	38	1,330
1862	70	2,543
1863	75	3,111
1864	91	4,666
1865	120	5,479
1866	153	6,835
1867	212	10,230
1868	300	14,600

In this list each separate institution in which scientific instruction is given is treated as a school, but the subjects taught and the number of classes in the different schools vary much. In some cases a school consists of but one class, and there is only one subject taught; in others there are as many as nine and ten classes in different subjects. The general results, as compared with the two previous years, are given below:—

	1866.	1867.	1868.
Number of schools under certificated teachers examined	153	212	300
Number of classes in the same	400	560	789
Number of individuals under instruction in classes under certificated teachers	6,835	10,230	14,600
Number of the above who came up for examination	2,980	4,520	Returns not complete.
Number examined in addition to the above who were not in schools under certificated teachers	170	400	300

The number of successful examinations in 1868 was 8,649, against 4,464 failures. In 1866 the number of successes was 3,562, the failures being 1,094. Excepting in the metropolis and its neighbourhood, Lancashire, Cheshire, the West Riding of Yorkshire, Cornwall, Edinburgh, Glasgow, and Birmingham, these science classes are

almost unknown. No such classes have yet been permanently established in the North-Eastern, Eastern, West-Midland, or Southern counties. But for this, the results above enumerated would have been considerably more encouraging. Many of the classes are confined to rudimentary instruction in chemistry, physiology, and botany. This appears to be, at least, a step in the right direction, and Captain Donelly, official inspector of these classes, confirms this impression, when, describing the great utility of these educational agencies, he states his surprise at finding "so many artisans who have been earning their daily bread, who have qualified in a number of the subjects which Mr. Whitworth is likely to insist upon his candidates being examined in." In illustration of this, he alluded to the case of a working cabinet-maker, who, by attendance at night classes, has been enabled to qualify himself in mathematics, mechanical drawing, mechanics, and physics. Looking at such facts as this, it is Captain Donelly's expectation that the educated artisans will run off with the Whitworth Scholarships. The three Prize Scholarships, tenable for three years, to the Royal School of Mines, were taken, in 1867, by a cabinet-maker, a student, and the son of a commercial traveller. Three similar scholarships to the Royal College of Science, in Ireland, were gained by an engineer, a chemist, and a teacher in training. Many of the medals in 1867 were gained by mechanics, joiners, miners, and other artisans, some being from East London.

In direct communication, also, with the Department of Science and Art, of which it may be considered a branch, is the Royal School of Mines, in Jermyn Street. The special object of this school is, to teach science in its application to mining purposes. It has systematic courses of lectures by some of the most eminent men of science, such as Professor Tyndall, Professor Huxley, Dr. Percy, and Dr. Frankland, in nearly every subject usually comprised in a higher technical course, with the exception of mathematics. The Royal College of Chemistry, in Oxford Street, forms the laboratory of the Jermyn Street Institution, and not only furnishes the means of procuring instruction as applied to mining or metallurgical purposes, but also in its application to various useful arts. The number of students in these places is limited, as shown by the subjoined figures:—

	1863–4.	1864–5.	1865–6.	1866–7.
Number of matriculated students, including exhibitioners	20	13	13	18
Number of occasional students	88	72	73	89

This does not include those attending the laboratories. The metallurgical laboratory is superintended by Dr. Percy, the chemical laboratory by Dr. Frankland. In connection with the school a series of working-class lectures are regularly delivered on certain evenings during the year, on which occasions artisans only are allowed to be present. These lectures are very popular, especially those on physics, and the demand for tickets—as previously mentioned—invariably exceeds the supply. Except in the case of those holding prize scholarships, the majority of students belong to the grade above that of the working classes. Many are the sons of manufacturers and professional men. The practical results of the teaching afforded them have been illustrated in various ways. Dr. Percy states that about

1850 there was scarcely a metallurgical works in the kingdom which had the assistance of an experienced chemist. At the present moment this state of things is completely reversed, and a practical chemist is deemed an essential portion of the working staff. Formerly, the chemists educated in the metallurgical laboratory had to go abroad to procure situations; now, the home demand for their services is extremely large. In fact, some are doing, in point of money remuneration, much better than their teachers. In Dr. Frankland's classes, in Oxford Street, it is not uncommon for a student to obtain 200*l.* or 300*l.* a year at once, in some chemical manufactory or brewery, and to have his salary increased up to 500*l.* Several cases have occurred of the students refusing 150*l.* per annum. Messrs. Simpson, Maule, and Nicholson, the purchasers and developers of Mr. Perkins' discovery, thereby making their fortunes, were educated in the Royal College of Chemistry. Mr. Suelus, who obtained the associateship in 1867, is now chemist to the Dowlais Iron Works. Mr. Richards, another associate of the same year, occupies a similar post at some hæmatite ironworks at Barrow-in-Furness. Dr. Lyon Playfair states that there exists an increasing demand in large manufacturing establishments for instructed managers. Numerous cases have occurred where young chemists get 300*l.* or 400*l.* per annum to commence with. Where lower salaries, say from 100*l.* to 150*l.* are given, the scientific knowledge required is merely of an elementary kind, for the purpose, perhaps, of examining soda ash, bleaching powder, or something of that kind. Many of the students at the Royal School of Mines have received their preparatory education in the City of London School. Of the pupils who have belonged to this school, one was Mr. Perkins, before alluded to; two others have become assistants to Dr. Frankland, a third is employed in the Royal School of Mines, a fourth at the Royal Institution, two more at Woolwich Arsenal, a seventh is engaged as demonstrator of chemistry at King's College, and the eighth holds the post of senior assistant chemist to the Rivers Commission. The scientific classes in the school were commenced about nine years since, but although it is too much to expect that all the pupils will become eminent men, there can be no question as to their pursuits in after life being considerably affected by the scientific instruction obtained by them at the school. Mr. Parkins, principal of the School of Naval Architecture at South Kensington, was educated in the City of London School.

Owens College, at Manchester, bids fair to become the centre of scientific education in the cotton manufacturing districts. The college was founded by the bequest of Mr. John Owens, merchant, of Manchester, who, dying in 1846, left 100,000*l.* for that purpose. The institution was opened in March, 1851. The number of day students during the first session was 62; in 1867-8 it was 161. In 1852 the evening classes were started. The average attendance during 1852-3 was 28; in 1867-8 it was 320. Since its formation, upwards of 130 of the students have matriculated in the University of London, more than half of these proceeding to the higher examinations. The subjects taught are of the usual scholastic character, including chemistry; but lately it has been determined, considering the importance of im-

parting the highest possible kind of scientific instruction, to place the chemical department in a position of efficiency worthy of the present condition of the science, and of its intimate connection with the interests of the district. It has also been arranged to found professorships of engineering, and applied geology and mining. When these aims have been accomplished, and the college is in possession of a larger building, it will afford the means of furnishing the highest general education, leading to degrees in arts and sciences, and the special training required for professional and mercantile life. At the present time, even with its defective arrangements, Owens College is considered to furnish a fair sample of what a science school should be. The students in the day classes are principally the sons of manufacturers and merchants; those attending the evening classes are chiefly young men employed in the warehouses and factories. There is also a dash of the foreman and artisan element. One of the artisan-students has matriculated at Oxford. The value of the chemical classes is convincingly shown by the fact that Manchester forms the centre of the largest chemical trade in the kingdom, namely, the manufacture of alkali and soda ash. The value of the articles manufactured in this particular trade amounts to 1,000,000*l.* sterling per annum, the total value of the alkali trade in Great Britain being estimated at about 2,000,000*l.* The next largest district, after Lancashire, is that of the Tyne. Up to the present time the sulphur used in the manufacture of alkali has been thrown away as waste, remaining in heaps, not only useless to the proprietors, but detrimental to the public health. But a method has just been introduced by a German chemist, employed by several of the Manchester manufacturers, by which the difficulties formerly experienced in connection with the sulphur have been obviated, and it can now be regenerated so as again to be fit for use. The success of the invention will not only bring a large reward to the inventor, but also exercise a widely-spread influence on the alkali manufacture itself.

Eight of the sixty preparatory scholarships in Mechanical Science founded by Mr. Joseph Whitworth, of Manchester, have been presented to Owens College. These sixty scholarships will be available until April, 1869, when they will become replaced by thirty scholarships of 100*l.* each. These thirty scholarships will be open to competition to all British subjects under the age of twenty-six, and will be tenable for two or three years, as may be determined upon. The competitors are to be examined in elementary and higher mathematics, theoretical and applied mechanics, practical plane and descriptive geometry, mechanical and freehand drawing, physics, and chemistry. Some knowledge of smith's work, turning, filing, fitting, pattern-making, and moulding, will also be required. The examinations are to be under the control of the Department of Science and Art. In deciding if the plan of study proposed by the student be satisfactory, as much latitude as possible is to be allowed. If the student wish to complete his general education, instead of continuing his special scientific study, he may be permitted to do so. He may go to the universities or colleges affording scientific or technical instruction, or he may travel abroad. The successful artisan is to be encouraged in

studying theory, and the successful competitor in theory aided in procuring admission to machine shops and similar establishments. According to a return published in the first week of October, 1868, the whole of the preparatory scholarships have been awarded to successful competitors, and there exists every prospect of Mr. Whitworth's munificent bequest exercising a wholesome influence in connection with the improvement and extended diffusion of technical education in this country.

Next to Lancashire, Woolwich forms the principal district in which science-instruction is most appreciated by the artisan class. This arises from the vicinity of the royal arsenal, in which skilled labour united with scientific knowledge is in great demand, and possesses considerable money value. At Wakefield, the profits, amounting to 3000*l*., accruing from an industrial exhibition held in that town, have been devoted to the establishment of a local school and museum of science and art. A similar museum is to be established in Bethnal Green. The utility of such institutions is described by Sir Robert Kane. His experience of the Irish Museums showed him that, with the assistance of competent lecturers, a museum of this character, presenting a series of objects which take in the materials of manufacture on the one hand, and illustrations, on the other, of the more important stages in the treatment through which such materials pass, is of great practical use. This opinion was shared by Mr. C. Hibbs and Mr. Whitworth, the latter expressing himself strongly in favour of such museums. The Mining School of Cornwall, better known as the Miners' Association, alluded to in a previous page, is the only one of its kind, and the mining population being scattered over a large area, it is found necessary to send teachers into the villages for the purpose of conducting the classes. At Hulme the local branch of the Amalgamated Society of Carpenters have established an adult school for the instruction of their members and others in drawing, principles of building, construction, and other branches of science bearing directly on their trade. This instance of enlightened action on the part of a trades' union remains the only one of its kind. The increase of science classes is greatly hindered by the deficiency of teachers, and the want of proper schools for training them. The remuneration of teachers, dependent solely on pupils' fees and payments on results by the Department of Science and Art, is, with few exceptions, so scanty that science teaching is scarcely ever followed as a profession, but only as an addition to some more profitable employment.

The conclusions arrived at by the Committee on Scientific Instruction appear to be in entire harmony with the character of the evidence laid before them. They insist on the necessity of good, sound, primary education, a result which Mr. Cole believes would be more generally attained were State aid so afforded as to encourage in every kind of school, with or without certificated teachers, the teaching of reading, writing, and ciphering, and to pay for those subjects by results. It is, moreover, suggested by Mr. Cole, that the "half-time" system in connection with children in factories should be encouraged; and that all idle vagrants, under twelve years of age,

found in the streets should be sent to school, the parents being compelled to contribute towards the cost of the same. Mr. Samuelson and Professor Leone Levi both express their conviction that extended primary education must precede extended technical instruction. The great evil, says Professor Leone Levi, is, that in most cases the children of the working-classes begin their life of labour with no education whatever. The Committee also make several valuable suggestions with respect to the manner in which the utility of science classes may be increased, the importance of Government colleges of science, increase of pay to science teachers, and the formation of a more increased connection between the various Government institutions for scientific instruction in London, all of which suggestions will probably be acted upon by the Government. Altogether, the present condition of the question shows that the country is rapidly awakening to the importance of education, both primary and secondary; and that it will lend its cordial support to any well-conceived measures having for their object the extension of these advantages to the great body of the people, by which means alone will our industrial supremacy be maintained in the markets of the world, and our commercial greatness far exceed the most sanguine expectations yet formed by those having an interest in the development of our national welfare and prosperity.

JOHN PLUMMER.

PART II.

LEGISLATION, STATISTICS, ARCHITECTURE AND PUBLIC IMPROVEMENTS, AND CHRONICLE OF 1867-68.

VII.—ABSTRACTS OF IMPORTANT PUBLIC ACTS

PASSED IN THE THIRD SESSION OF THE NINETEENTH PARLIAMENT OF GREAT BRITAIN AND IRELAND.

INCOME TAX.

[31 Victoriæ, cap. 2.—December 7, 1867.]

An Act to grant to Her Majesty additional Rates of Income Tax.

This Act, passed to raise the sum necessary for the expenses of the expedition to Abyssinia, imposed an additional penny in the pound on incomes, except for tenant farmers, who were to pay a halfpenny additional in England, and three-eighths of a penny in Scotland and Ireland. The exemptions and other provisions remained as before.

REVERSIONS.

[31 Victoriæ, cap. 4.—December 7, 1867.]

An Act to amend the Law relating to Sales of Reversions.

It is enacted that from January 1, 1868, "no purchase, made *bonâ fide* and without fraud or unfair dealing, of any reversionary interest in real or personal estate shall hereafter be opened or set aside merely on the ground of undervalue."

METROPOLITAN STREETS ACT AMENDMENT.

[31 Victoriæ, cap. 5.—December 7, 1867.]

An Act for the amendment of the Metropolitan Streets Act, 1867.

The sixth clause of the Act 30 and 31 Vict. cap. 134, prohibiting the depositing of goods in the streets, is repealed so far as it affects costermongers or itinerant traders, so long as they adhere to the regulations of the Commissioner of Police approved of by the Secretary of State: and no regulation as to the carrying of lamps by public cabs, enforced by § 17, is to have any effect without the approval of the Secretary of State.

DISFRANCHISED BOROUGHS.

[31 Victoriæ, cap. 6.—December 7, 1867.]

An Act to forbid the Issue of Writs for Members to serve in the present Parliament for the Boroughs of Totnes, Reigate, Great Yarmouth, and Lancaster.

The Speaker is prohibited from issuing any writ for the election of members for any of the above-named boroughs, and no registration of voters is to be made for them.

HABEAS CORPUS SUSPENSION CONTINUANCE ACT.

[31 Victoriæ, cap. 7.—February 28, 1868.]

An Act to further continue the Act of the 29th Vict. cap. 1, intituled "An Act to empower the Lord Lieutenant or other Chief Governor of Ireland to apprehend and detain for a limited Time such Persons as he or they shall suspect of conspiring against her Majesty's Person and Government."

The powers of former Acts are confirmed and continued until March 25, 1869, or until Parliament shall have sat twenty-one days for the despatch of business after that date.

EAST LONDON MUSEUM SITE.

[31 Victoriæ, cap. 8.—February 28, 1868.]

An Act to provide for the acquisition of a Site for a Museum in the East of London.

Powers are given to the trustees of certain charity lands in the parish of St. Matthew, Bethnal Green, near Cambridge Heath, to sell, and to the trustees of the proposed museum to purchase, such lands, holding them in trust for the proposed object; or may transfer them to the Department of Science and Art if requested so to do.

MUTINY.

[31 Victoriæ, cap. 14.—April 3, 1868.]

An Act for punishing Mutiny and Desertion, and for the better Payment of the Army and its Quarters.

The Mutiny Act is an annual Act, fixing the number of soldiers for the ensuing year, and beyond that being almost entirely a repetition of the previous Acts. This year there was a remarkable exception. By § 22 it is enacted that "no court-martial shall, for any offence whatever committed under this Act during the time of peace within the Queen's dominions, have power to sentence any soldier to corporal punishment." Thus the lash is abolished in the British army, except during active service in the field or on board ship.

LONDON COAL AND WINE DUTIES.

[31 Victoriæ, cap. 17.—May 29, 1868.]

An Act to further continue and appropriate the London Coal and Wine Duties.

The duties are continued until July 5, 1889, in the first instance for completing the improvements connected with the Holborn Valley and the Holborn Viaduct; then for freeing from toll the bridges at Kew, Kingston, Hampton, Walton, and Staines, all on the Thames; and lastly, for abrogating the toll on the Chingford and Tottenham Mills Bridges on the Lea.

CAPITAL PUNISHMENT WITHIN PRISONS.

[31 Victoriæ, cap. 24.—May 29, 1868.]

An Act to provide for carrying out of Capital Punishment within Prisons.

From the passing of this Act judgment of death is to be executed on criminals within the walls of a prison, in the presence of the sheriff, the

gaoler, the chaplain, and the surgeon of the prison, such other officers of the prison as the sheriff may require, the relatives of the prisoner, and persons whom the sheriff or the visiting justices may think proper to admit. After execution the surgeon and the sheriff are to certify the death, and a coroner's inquest is to be held on the body within twenty four hours after the execution, the jury to ascertain the identity of the body, and whether the execution was duly performed. No officer of the prison to be a juror, and the body of the criminal is to be buried within the prison walls. The Secretary of State is empowered to make rules to be observed at executions, such rules to be laid before Parliament, and the certificates required after the death of the criminal are to be sent to the Secretary. Penalties are imposed for falsifying certificates. The Act applies to Scotland and Ireland also, with certain modifications.

INDUSTRIAL SCHOOLS, IRELAND.

[31 Victoriæ, cap. 25.—May 29, 1868.]

An Act to extend the Industrial Schools Act to Ireland.

A school in which industrial training is provided, and in which children are lodged, clothed, and fed, is to be deemed an Industrial School, and be certified by the Chief Secretary, after having been examined by the Inspector, who is to be the Inspector of Reformatory Schools, and each certified school is to be inspected annually; but no school is to be certified as a Reformatory as well as an Industrial School. A notice of the grant of a certificate is to be published in the *Gazette*. The grand jury of a county or the council of a town may contract with the managers for the reception of children into the schools, the expense to be defrayed from the same fund provided for the expenditure on gaols. Children under fourteen found begging, or wandering without a home or visible means of subsistence, or being orphans, or having their parents in prison, or known as frequenting the company of reputed thieves, may be taken by any person before two magistrates, who may order such children to be sent to a certified Industrial School. If a child under twelve be brought before a magistrate charged with an offence punishable by imprisonment he may, if not previously convicted of felony, be sent to an Industrial School. The parent, guardian, or nearest adult relative of any child sent to an Industrial School may apply under certain regulations for the removal of such child to a school conducted in accordance with the child's religious persuasion; and a minister of the religion of the child, which is to be specified in the order of detention, may visit the school at such times as are fixed, in order to instruct the child in its religious tenets. Under certain circumstances children are allowed to live out of the school, but the licence for such purpose is to be for not more than three months, renewable at discretion. Power is given to apprentice a child before the period of detention has expired; a child above ten who wilfully refuses to conform to the rules of the school may be imprisoned for any term not exceeding three months, with or without hard labour, and afterwards sent to a Reformatory School; children escaping from the school are to be punished in like manner, and persons assisting in the escape, or knowingly harbouring an escaped child, subjects himself to a penalty not exceeding 20*l*., or imprisonment for not more than two months. Parents or other persons liable to maintain a child are, if of sufficient ability, to contribute a sum not exceeding 5*s*. a week; on neglect of such payment it may be enforced by a magistrate by summary process, but may be remitted

wholly or partially by the Chief Secretary. No person is to be detained after having attained the age of sixteen without their own consent in writing; and the Chief Secretary may order the discharge of a child under such conditions as he may approve. Managers of schools may resign the certificate of an establishment, the resignation to be announced in the *Gazette;* children are no longer to be sent thither; and those in the school are to be either discharged or transferred to some other, as the Chief Secretary may direct. Schedules of forms are added.

CUSTOMS AND INCOME TAX.

[31 Victoriæ, cap. 28.—May 29, 1868.]

An Act to grant certain Duties of Customs and Income Tax.

The duty on tea is continued at the rate of 6*d.* per lb. for a year, ending on August 1, 1869; and the income tax is fixed at 6*d.* in the pound for incomes under the same provisions as last year, 3*d.* on farming occupations in England, and 2½*d.* in Scotland and Ireland.

ENDOWED SCHOOLS.

[31 and 32 Victoriæ, cap. 32.—June 25, 1868.]

An Act for annexing Conditions to the Appointment of Persons to Offices in certain Schools.

Preparatory to legislating on Public Schools, it is enacted that all persons appointed to offices in them after the passing of this Act, are to take them subject to any modification that may be subsequently made; but this is not to apply to the holders of scholarships, exhibitions, or pensions, the amount of which is not in the discretion of the governing body.

DOCUMENTARY EVIDENCE.

[31 and 32 Victoriæ, cap. 37.—June 25, 1868.]

An Act to amend the Law relating to Documentary Evidence in certain Cases.

Any proclamation by her Majesty or the Privy Council, also of any "proclamation, order, or regulation," issued by or under the authority of the Commissioners of the Treasury, the Lords of the Admiralty, the Secretaries of State, the Committee of Privy Council for Trade, and the Poor Law Board, are to be received as evidence in legal proceedings in all courts of justice in Great Britain, her colonies and possessions. Copies or extracts, either in print or in writing, may be received, if certified to be true, by the recognised officials of the various departments. The preparing of orders or proclamations, falsely purporting to have been printed by the Government printer, or tendering forged certificates, subjects the offender to the punishment for felony, and may be either penal servitude for the shortest term, or imprisonment for two years.

JURORS' AFFIRMATIONS, SCOTLAND.

[31 and 32 Victoriæ, cap. 39.—June 25, 1868.]

An Act to give Relief to Jurors who may refuse or be unwilling from alleged Conscientious Motives to be sworn in Civil or Criminal Proceedings in Scotland.

Allows jurors to make a solemn declaration or affirmation, in a prescribed form, in lieu of an oath, the affirmation stating that they believe

the taking of an oath to be unlawful. The affirmation entailing all the consequences as if they had taken an oath in the usual form.

PARTITION.

[31 and 32 Victoriæ, cap. 40.—June 25, 1868.]

An Act to amend the Law relating to Partition.

The Act empowers the Court in which the suit has been made to order a sale of the property, and to distribute the proceeds, where it would be more beneficial to the parties than a division, or where other circumstances render a division undesirable. Where one-half of the parties interested apply for a sale, unless the Court see reasons for the contrary, such sale is to be ordered. Parties interested are allowed to bid at such sale, on such terms as to non-payment of deposit money, or a setting-off, or accounting for the purchase money, as the Court may direct. Any person interested in a suit for partition may maintain such suit against any one or more of the parties interested, without serving notice on others, and the defendant may not object for want of parties, but at the hearing the Court may direct an inquiry, and the parties interested are to have notice of the decree or order. After such notice they will be bound by the proceedings, which, however, they have liberty to attend, and, within a limited time, may apply to the Court to add to the decree or order. The County Courts in England are to have the like powers with the Court of Chancery in any case where the value of the property does not exceed 500*l.*

BUILDING SITES.

[31 and 32 Victoriæ, cap. 44.—July 13, 1868.]

An Act for facilitating the Acquisition and Enjoyment of Sites for Buildings for Religious, Educational, Literary, Scientific, and other Charitable Purposes.

Repeals so much of previous Acts as render lands unalienable, provided such alienation be made for a full consideration actually paid, or for a reserved rent, and that each piece of land shall not exceed two acres in extent. It may be enrolled in Chancery, but the deed need not be acknowledged in order to enrolment.

SEA FISHERIES.

[31 and 32 Victoriæ, cap. 45.—July 13, 1868.]

An Act to carry into effect a Convention between her Majesty and the Emperor of the French concerning the Fisheries in the Seas adjoining the British Islands, and to amend the Laws relating to British Sea Fisheries.

This long Act contains minute directions for conducting the fisheries. British and French fishermen are to enjoy the exclusive right of fishing within three geographical miles, measured from headland to headland along their respective coasts. All boats are to be registered and plainly marked with their names. Each has the power of bringing fish for sale to certain named ports; of which in England there are 27, in Scotland 5, in Ireland 5, and at Jersey and Guernsey. In France 167 places are open to British fishing boats. A great number of Acts are repealed wholly or in part.

BOUNDARY ACT.

[31 and 32 Victoriæ, cap. 46.—July 13, 1868.]

An Act to settle and describe the Limits of certain Boroughs and the Divisions of certain Counties in England and Wales, in so far as respects the Election of Members to serve in Parliament.

By this Act the boundaries of some old Parliamentary boroughs are enlarged; the boundaries of the newly constituted boroughs are minutely defined, as are also the divisions of counties where they are separated for the purpose of giving additional representatives. In each case provision is made for making it publicly known.

CONSECRATION OF CHURCHYARDS.

[31 and 32 Victoriæ, cap. 47.—July 13, 1868.]

An Act to amend the Consecration of Churchyards Act, 1867.

The chief alteration is, that in the former Act the giver of the land might reserve a part, "not exceeding fifty square yards, or one-sixth of the whole," for an exclusive right of burial in perpetuity; the limitation of fifty square yards is removed, and one-sixth of the whole may be reserved. The placing of monuments or gravestones is still to be under the control of the bishop of the diocese, as before. Graveyards belonging to unions are within the provisions of the Act.

REPRESENTATION OF THE PEOPLE, SCOTLAND.

[31 and 32 Victoriæ, cap. 48.—July 13, 1868.]

An Act for the Amendment of the Representation of the People in Scotland.

The franchise is fixed for burghs at the same rate and on the same terms as in England; in counties the occupation tenure is "14*l.* or upwards, as appearing on the valuation rolls" of the county; all the other provisions are in effect the same, modified only so as to adapt them to the Scottish legal forms. Additional seats are given: one to the Universities of St. Andrews and Edinburgh; one to those of Glasgow and Aberdeen; one to Glasgow city, which is to return three, but electors may not vote for more than two candidates. The counties of Lanark, Ayr, and Aberdeen are divided, each division to return one member, and Dundee is to return two; the counties of Selkirk and Peebles are united, losing a member, which is given to the grouped burghs of Selkirk, Hawick, and Galashiels. Aberdeenshire is divided into East and West; for the East the place for proclaiming the writ is Peterhead, and Aberdeen for the West. Ayrshire is divided into North and South; the writ for the South to be proclaimed at Ayr, and for the North at Kilmarnock. Lanarkshire is also divided North and South; the South has Lanark for its head; the North, Hamilton. To make room for these additions the English boroughs of Arundel, Ashburton, Dartmouth, Honiton, Lyme Regis, Thetford, and Wells, have been wholly disfranchised. Penalties or punishments for infractions of the regulations of the Act are imposed, as in the English Act, and may be recovered or inflicted by the usual process.

REPRESENTATION OF THE PEOPLE, IRELAND.

[31 and 32 Victoriæ, cap. 49.—July 13, 1868.]

An Act to amend the Representation of the People in Ireland.

In this Act the occupation franchise in towns is reduced from 8*l.* to

4*l.*, and for lodgers it is fixed at a clear annual value of 10*l.* unfurnished. Where practicable, rooms to be used for polling-booths are to be hired, if needed. No alteration was made in the distribution of seats.

FAIRS.

[31 and 32 Victoriæ, cap. 51.—July 13, 1868.]

An Act to amend the Law relating to Fairs in England and Wales.

The Secretary of State, upon representation made by a magistrate or by the owner, that any chartered or legal fair might be more advantageously held on some day or days other than that or those on which it is now held, is empowered to change the time accordingly, but notice of the reception of such representation is to be published in the *Gazette* and in a local newspaper. The order, when made, is to be published in like manner; and thereupon the fair is only to be held on the day or days or at the place mentioned in such order. The toll or tolls, and all other rights and privileges, remain with the owner as before, with the like powers to enforce them.

VAGRANT ACT AMENDMENT.

[31 and 32 Victoriæ, cap. 52.—July 13, 1868.]

An Act to amend the Act for punishing Idle and Disorderly Persons, and Rogues and Vagabonds, so far as relates to the use of Instruments of Gaming.

"Every person playing or betting," says section 3, "by way of wagering or gaming, in any street, road, highway, or other open or public place, or in any place to which the public have or are permitted to have access, at or with any table or instrument of gaming, or any coin, card, token, or other article used as an instrument or means of such wagering or gaming, at any game or pretended game of chance, shall be deemed a rogue and vagabond within the true intent and meaning of the recited Act [5 Geo. IV., cap. 83], and as such may be convicted and punished under the provisions of that Act." This Act came into operation on October 1, 1868.

PETROLEUM ACT AMENDMENT.

[31 and 32 Victoriæ, cap. 56.—July 13, 1868.]

An Act to amend the Act 25 & 26 *Vict. cap.* 66, *for the safe keeping of Petroleum.*

This Act is to be construed as one with the previous statute, and under the term petroleum includes rock oil, Rangoon oil, Burmah oil, and any product made from petroleum, coal, shale, schist, or any other bituminous substance giving off an inflammable vapour at a temperature of less than 100° Fahrenheit. From and after February 1, 1869, no petroleum is to be kept, otherwise than for private use, within fifty yards of a dwelling-house or of a building in which goods are stored, except in pursuance of the licence given in accordance with the Petroleum Act, 1862. There may be annexed to the licence conditions as to the keeping and storage of petroleum. After the day named no person is to sell or expose for sale for use within the United Kingdom any description of petroleum which gives off an inflammable vapour at a temperature of less than 100° of Fahrenheit's thermometer, unless the bottle or vessel containing such petroleum have attached thereto a label in legible characters stating that "great care must be taken in bringing any light near to the contents of this vessel, as they give off an inflammable

vapour at a temperature of less than 100° of Fahrenheit's thermometer." Any person acting in contravention of the section, for each offence is to be subject to a penalty not exceeding 5*l*. The inspectors of weights and measures are empowered to test petroleum, but the owner, on conviction, may demand a further test by an analytical chemist, who is to be paid from 2*s*. 6*d*. to 10*s*. 6*d*. for the analysis; and in case the conviction is affirmed, the offender to pay the costs, but if acquitted, the costs to be defrayed from the funds provided for such purposes by the Act 23 & 24 Vict. A schedule gives details how the flashing test is to be applied.

REGISTRATION.

[31 and 32 Victoriæ, cap. 58.—July 13, 1868.]

An Act to amend the Law of Registration so far as relates to the Year 1868, *and for other Purposes.*

Most of the provisions of this Act were merely temporary; additional revising-barristers were appointed, the times for making claims and objections, for revising the lists, and forwarding them to the returning officers were shortened, in order to facilitate the elections for a new parliament in 1868. Among the permanent enactments were, that the 12*l*. occupancy voters in counties, and the lodger voters in boroughs, are to be given in lists separate from other voters; where a parish forms a part of more than one polling district each part is to be deemed a separate parish for the purpose of making up the register; the sheriff or other returning officer is to provide polling-booths, so that not more than 500 be allowed to poll in each compartment; the revising barrister may call for, and the overseers are bound to produce, the rate books for the relief of the poor, and the overseers must attend and afford all necessary information to the revising-barrister; the expenses of overseers are to be paid, but the accounts must be delivered in open court, and any ratepayer may claim to examine them, and to object to any item therein, upon which the revising-barrister is to decide; his certificate, after the examination, is to be conclusive. Printed copies of the registers are to be transmitted to the Secretary of State on or before February 21 in each year.

UNIVERSITY ELECTIONS.

[31 and 32 Victoriæ, cap. 65.—July 31, 1868.]

An Act to amend the Law relating to the Use of Voting Papers in Elections for the Universities.

By the 24 & 25 Vict. cap. 53, the person tendering a voting paper for any candidate at the Universities, was required to sign a declaration that he was "personally acquainted" with the voter. This is repealed, and the declaration now runs: "I solemnly declare that I verily believe that this is the paper by which A. B. (the voter) intends to vote, pursuant to the provisions of the Universities Election Act, 1861 and 1868." A voting paper for the election of a member for any of the Universities may be signed by a voter in the Channel Islands—in Jersey and Guernsey—in the presence of the Bailiffs or any Lieutenant-bailiff, Jurat, or Juge d'Instruction; in Alderney, of the Judge of Alderney or any Jurat; and in Sark, of the Seneschal or Deputy-Seneschal. For the purpose of certifying and attesting the signature of the voting paper, each of the officers mentioned is to have all the powers of a justice of the peace under the first Act, and a statement of the official quality of such officer is to be a sufficient statement of quality in pursuance of the same.

METROPOLITAN POLICE FUND.

[31 and 32 Victoriæ, cap. 67.—July 31, 1868.]

An Act to amend the Law relating to the Funds provided for defraying the Expenses of the Metropolitan Police.

The 8*d.* in the pound "on the full annual value of all property rateable for the relief of the poor," within the Metropolitan District, not being found sufficient "to provide for the expenses of the increased force of police required for the protection of the Metropolis," it is enacted, that the sum to be provided shall not exceed 9*d.* in the pound, calculated on the poor-rate as before; one-fourth part to be contributed by the Treasury, the other three-fourths to be raised by a rate in the manner provided by previous Acts." The Assistant-Commissioners are to have an addition to their salaries of a sum not exceeding 300*l.* a year for house-rent. The Act 3 & 4 Will. IV. cap. 89, authorizing the issue of money out of the Consolidated Fund towards the support of the police, is repealed, and certain other Acts are to be construed as one with this.

LIBEL LAW (IRELAND).

[31 and 32 Victoriæ, cap. 69.—July 31, 1868.]

An Act to assimilate the Law in Ireland to the Law in England, as to Costs in Actions of Libel.

"In all actions for libel, where the jury shall give damages under 40*s.*, the plaintiff shall not be entitled to more costs than damages, unless the judge before whom such verdict shall be obtained shall immediately afterwards certify on the back of the record that the libel was wilful and malicious." This is the whole of the Act, which is confined to Ireland.

COUNTY COURTS ADMIRALTY JURISDICTION.

[31 and 32 Victoriæ, cap. 71.—July 31, 1868.]

An Act for conferring Admiralty Jurisdiction on the County Courts.

Power is given to her Majesty in Council to confer Admiralty jurisdiction on any County Court, and to assign to it a district, with the adjacent parts of the sea (if any) to a distance of three miles, over which its jurisdiction shall extend, provided that no judge of a County Court except the judges of the London Court shall have jurisdiction in the City of London. Any Courts so appointed are provided with the necessary powers and authorities to decide in the following causes:—"1. As to any claim for salvage; any cause in which the property saved does not exceed 1000*l.*, or in which the amount claimed does not exceed 300*l.* 2. As to any claim for towage, necessaries, or wages; any cause in which the amount claimed does not exceed 150*l.* 3. As to any claim for damage to cargo, or damage by collision; any cause in which the amount claimed does not exceed 300*l.* 4. Any cause in respect of any such claim or claims as aforesaid, but in which the value of the property saved, or the amount claimed, is beyond the amount limited as above-mentioned, when the parties agree by a memorandum signed by them, or by their attorneys or agents, that any County Court having Admiralty jurisdiction, and specified in the memorandum, shall have jurisdiction." The remainder of the Act gives the form of procedure, and is professional.

PROMISSORY OATHS.

[31 and 32 Victoriæ, cap. 72.—July 31, 1868.]

An Act to amend the Law relating to Promissory Oaths.

In the oath hereby enacted the declaration of the line of succession and the promise to support it is omitted. It is to be taken only by the chief officers of State, including Privy Councillors, members of either House of Parliament, the Judges of the Superior Courts, and clergymen. The oaths of allegiance, supremacy, and abjuration are no longer to be taken by any person. The chief officers of State, besides taking this new oath of allegiance, are also to take what is to be called "the official oath," by which they will swear that they "will well and truly serve her Majesty Queen Victoria in the office" upon which they are entering. The Judges are to take what is to be called "the judicial oath," and by which they are to swear that they "will well and truly serve our Sovereign Lady Queen Victoria in the office of ——, and will do right to all manner of people after the laws and usages of this realm, without fear or favour, affection or ill-will." The Act is not to affect the oaths taken by clergymen, or by peers, baronets, or knights on their creation, by the army and navy, or by aliens on being naturalized, or shipowners' oaths under § 18 of the Merchant Shipping Act of 1854, except by appointing this new form of the oath of allegiance. Declarations are to be substituted for oaths taken on acceptance of office or admission to guilds or societies, and the specification often given of duties in detail under some private or local Act, or charter, or custom, is to give place to a promise that the declarant will truly and faithfully perform the duties of his office, or will honestly demean himself as a member or fellow of or as participator in the privileges of the guild, corporation, society, or company.

CIVIL OFFICERS DISABILITIES REPEAL.

[31 and 32 Victoriæ, cap. 73.—July 31, 1868.]

An Act to relieve certain Officers employed in the Collection and Management of her Majesty's Revenues from any Legal Disability to Vote at the Election of Members to serve in Parliament.

The schedules to the Acts of the 22 Geo. III. cap. 41, the 43 Geo. III. cap. 25, and the 7 & 8 Geo. IV. cap. 53, sec. 9, by which officers employed in the collection of the revenue were incapacitated for voting at the election of members of parliament are repealed.

PETIT JURIES, IRELAND.

[31 and 32 Victoriæ, cap. 75.—July 31, 1868.]

An Act to amend the Law relating to Petit Juries in Ireland.

Jurors are allowed to make an affirmation or declaration, if objecting to an oath on religious grounds; and juries sworn to try any issue of treason or felony, if it be necessary to keep them together for any night or nights, or for Sunday, may be taken from the courthouse to any convenient place, named by the Court, in any adjoining county, or county of a city, to be kept in all respects as if such county formed part of the county to which such courthouse may belong.

DIVORCE AND MATRIMONIAL CAUSES COURT.

[31 and 32 Victoriæ, cap. 77.—July 31, 1868.]

An Act to amend the Law relating to Appeals from the Court of Divorce and Matrimonial Causes in England.

Repealing certain clauses in previous Acts, it is enacted that in any suit for dissolution or nullity of marriage either party may, within one month after the pronouncing of the decision, appeal to the House of Lords, to be dealt with as they shall direct. But in suits for dissolution, no respondent or co-respondent not appearing for the defence on the decree nisi being made will have the right to appeal. Where no right of appeal exists, the respective parties are at liberty to marry again at any time after the pronouncing of the decree absolute.

RAILWAY COMPANIES.

[31 and 32 Victoriæ, cap. 79.—July 31, 1868.]

An Act to further amend the Law relating to Railway Companies.

The restriction on executions against property imposed by the Acts of 1867, are continued from September 1, 1868, to September 1, 1870.

ARMY CHAPLAINS.

[31 and 32 Victoriæ, cap. 83.—July 31, 1868.]

An Act to afford greater Facilities for the Ministration of Army Chaplains.

Power is given to her Majesty in Council, with the consent and under the seal of the bishop of the diocese, to fix the bounds of a precinct for any military station (barrack, camp, arsenal, &c.), the map or plan describing the bounds to be annexed to the scheme, and registered; and such precinct to be thenceforth an extra-parochial district. The Secretary of State may appoint any army chaplain to fulfil the duties of such district; and where a chapel has been or shall be erected, it is to be considered the chapel of such extra-parochial district. If the building ever cease to be used for such purpose, the fact is to be notified to the bishop, and the provisions of this Act shall no longer apply. Power is given to the council to declare such extra-parochial districts to be under the jurisdiction of such archbishop or bishop as her Majesty may see fit to appoint, all other ecclesiastical jurisdiction then to cease.

ASSIGNEES OF MARITIME POLICIES.

[31 and 32 Victoriæ, cap. 86.—July 31, 1868.]

An Act to enable Assignees of Maritime Policies to sue thereon in their own Names.

"Whenever a policy of insurance on any ship, or on any goods in any ship, or on any freight, has been assigned so as to pass the beneficial interest in such policy to any person entitled to the property thereby insured, the assignee of such policy shall be entitled to sue thereon in his own name; and the defendant in any action shall be entitled to make any defence which he would have been entitled to make if the said action had been brought in the name of the person by whom or for whose account the policy sued upon was effected." The assignment is to be effected by indorsement on the policy in a prescribed form.

VACCINATION, IRELAND.

[31 and 32 Victoriæ, cap. 87.—July 31, 1868.]

An Act to amend the Act of the 26 *and* 27 *Vict. cap.* 52, *intituled "An Act to further extend and make compulsory the Practice of Vaccination in Ireland."*

Vaccination is declared to be not parochial relief, so as to disqualify any one, or deprive them of any right or privilege. Any person inoculating with small-pox, or by wilful exposure, or any other means, communicating the disease, is made liable to imprisonment by summary process for any term not exceeding six months.

PUBLIC DEPARTMENTS PAYMENTS.

[31 and 32 Victoriæ, cap. 90.—July 31, 1868.]

An Act to empower certain Public Departments to pay otherwise than to Executors or Administrators Small Sums due on Pay or Allowances to Persons deceased.

The Treasury and the War Office are empowered to direct the payment of sums under 100*l.*, due from the government for pay, or allowances, or prize money, to persons deceased, to such persons as may be deemed entitled to the same, without the production of letters of administration.

BURIALS, IRELAND.

[31 and 32 Victoriæ, cap. 103.—July 31, 1868.]

An Act to amend the Law which regulates the Burials of Persons in Ireland not belonging to the Established Church.

Where the burial of any person, not a member of the United Church of England and Ireland, takes place as of right within any churchyard of which the freehold is vested in the incumbent, a minister of the denomination to which the deceased belonged is empowered "to attend such burial, and to read such prayers, or perform such burial service at the grave in such churchyard as is usual or customary at burials of persons belonging to such denomination;" the wilfully obstructing of such service is punishable as a misdemeanour. Such burial service, however, is not to take place so as to interfere with divine service, the catechising of children, or other right or ceremony of the church; twenty-four hours' notice is to be given of the time proposed for the burial to take place, and if it be fixed at an unfit time, the incumbent is to name some other convenient time. The Lord Lieutenant has power given to exempt churchyards provided for special purposes or congregations.

BANKRUPTCY ACT AMENDMENT.

[31 and 32 Victoriæ, cap. 104.—July 31, 1868.]

An Act to amend the Bankruptcy Act, 1861.

This Act came into operation on October 11, 1868, and is to be construed as one Act with the previous Bankruptcy Acts of 1849, 1854, and 1861, so far as they are in force. The first clause enacts that no deed or instrument between a debtor and his creditors or trustee on their behalf shall be valid or binding on all the creditors of such debtor, as if they were parties to and had duly executed the same, unless, together with such deed or instrument, "there shall be delivered to the Chief Registrar a list, showing, to the best of the knowledge, information, and belief of

the debtor or other person by whom the list is made, the debts and liabilities of every kind of the debtor, and the times when such debts and liabilities were contracted, and the considerations for the same, the names, residences, and occupations of his creditors, and the respective amounts due to them, and the securities held by them, and the value of such securities." Also a statement of the debtor's property and credits, and their estimated value. These lists may be added to, or amended, by leave of the Court, such alterations to be verified by affidavit. Notice is to be given in the *London Gazette*, and one or more daily newspapers, of such lists having been deposited; and any creditor, or his agent or attorney, may inspect the lists or statement, and have a copy or extracts from them. Assenting creditors to composition deeds are to prove their debts; and the amount due to each creditor, after deducting the value of the securities held by him on the debtor's property, is alone to be reckoned in forming the majority of three-fourths in value necessary for enforcing a composition; and the deed is to be left at the office of the registrar twenty-eight days from the day of the execution by the debtor, or such further time as the Court may allow. Any creditor executing a deed whose debt exceeds 10*l.* may apply for an examination of the debtor or any creditor. In a change from bankruptcy to an arrangement deed the assenting creditors are to prove as above stated. The Lord Chancellor, with the assistance of two Commissioners, and subject to the provisions of the Bankruptcy Act, 1861, may make general orders under the Act. In addition to the officers and persons enumerated in section 207 of the Bankruptcy Act, 1861, affidavits, declarations, or affirmations required to be sworn or made in relation to any matter under that Act or this Act may be sworn, made, or taken before such of the officers or clerks in the Court of Bankruptcy as the Lord Chancellor by order may appoint for the purpose; and every order, warrant, certificate, or proceeding in the Court of Bankruptcy required by law to be signed by a Commissioner, may, in lieu of being so signed, be under the hand of a Registrar and the seal of the Court. False declarations, affirmations, or affidavits, are punishable as perjury. The Act is not to extend to Scotland or Ireland.

METROPOLITAN FAIRS.

[31 and 32 Victoriæ, cap. 106.—July 31, 1868.]

An Act for the Prevention of the holding of Unlawful Fairs within the Limits of the Metropolitan Police District.

Power is given to the Commissioner of Police, when a fair is held, or proposed to be held, on any ground within the Metropolitan Police District, other than that on which a fair has been held during each of the seven years immediately preceding, to direct one of the superintendents of the police to summon the owner or occupier of the ground before a magistrate to show his right and title to hold such fair. If he do not attend, or fail to show that such fair is lawfully held, the magistrate is to declare in writing such fair to be unlawful; copies of the declaration are to be fixed on or near the ground on which such fair is held, or proposed to be held; and after being so fixed for six hours, the Commissioner "may direct any constable to remove every booth, standing, and tent, and every carriage of whatever kind, conveyed to or being upon the ground for the purpose of holding or continuing such fair, and to take into custody every person erecting, pitching, or fixing, or assisting to erect, pitch, or fix, any such booth,

standing, or tent; and every person hiring, accompanying, or conveyed in every such carriage; and every person resorting to such ground with any show or instrument of gambling or amusement; and every person convicted before a magistrate of any of the offences aforesaid shall be liable to a penalty of not more than 10*l*." The summons is to be served on the owner or occupier at his last known place of abode, if that is not known, it is to be placed on some conspicuous place in the ground where the fair is held, or to be held; and it is not necessary to name the owner or occupier, but simply to describe him as such.

COMPULSORY CHURCH RATES ABOLITION.

[31 and 32 Victoriæ, cap. 109.—July 31, 1868.]

An Act for the Abolition of Compulsory Church-rates.

The preamble recites that "Church-rates have for some years ceased to be made or collected in many parishes by reason of the opposition thereto, and in many other parishes where Church-rates have been made the levying thereof has given rise to litigation and ill-feeling," and that "it is expedient that the power to compel payment of Church-rates by any legal process should be abolished." It is then enacted: § 1. That from and after the passing of this Act no suit shall be instituted or proceeding taken in any ecclesiastical or other court, or before any justice or magistrate, to enforce or compel the payment of any Church-rate made in any parish in England or Wales. § 2. "Where in pursuance of any general or local Act any rate may be made and levied, which is applicable partly to ecclesiastical purposes and partly to other purposes, such rate shall be made, levied, and applied for such last-mentioned purposes only, and so far as it is applicable to such purposes shall be deemed to be a separate rate, and not a Church-rate, and shall not be affected by this Act. Where, in pursuance of any Act of Parliament, a mixed fund, arising partly from rates affected by this Act and partly from other sources, is directed to be applied to purposes some of which are ecclesiastical purposes, the portion of such fund which is derived from such other sources shall be henceforth primarily applicable to such of the said purposes as are ecclesiastical." § 3. In a parish where money is due on the security of Church-rates, they may still be levied till the debt is paid. § 4. Any Church-rate made at any time before the passing of the Act may be collected and recovered. § 5. The Act is not to affect enactments in local Acts under which Church-rates are made for the extinguishment of tithes or other charges upon property; nor, § 6, is it to affect vestries, or the making, assessing, receiving, or otherwise dealing with any Church-rate, save in so far as relates to the recovery thereof. § 7. Trustees and others under incapacity may subscribe to a voluntary Church-rate. § 8. "No person who makes default in paying the amount of a Church-rate for which he is rated shall be entitled to inquire into or object to a vote in respect of the expenditure of the moneys arising from such Church-rate; and if the occupier of any premises shall make default for one month after demand in payment of any Church-rate for which he is rated, the owner shall be entitled to pay the same, and shall thereupon be entitled until the next succeeding Church-rate is made to stand for all purposes relating to Church-rates (including the attending at vestries and voting thereat) in the place in which such occupier would have stood." Power is also given to appoint church trustees for receiving and applying bequests and contributions for ecclesiastical purposes; such trustees to be the incumbent and two householders, or owners or occupiers of land, one to be named by the patron, and one by

the incumbent. The Act is to be cited as "The Compulsory Church-rate Abolition Act, 1868."

ELECTRIC TELEGRAPHS.

[31 and 32 Victoriæ, cap. 110. July 31, 1868.]

An Act to enable her Majesty's Postmaster General to acquire, work, and maintain Electric Telegraphs.

The preamble states that whereas "the means of communication within the United Kingdom are insufficient, and that many districts are without it," . . . "that it would be attended with great advantage to the state as well as to merchants and traders, and to the public generally, if a cheaper, more widely extended, and more expeditious system of telegraphy were established, and to that end the Postmaster-General be empowered to work telegraphs in connection with the administration of the Post-office." After giving the short title, and defining the interpretation of terms, the Act, §§ 4 to 10, proceeds to empower the Postmaster-General, with the consent of the Treasury, "out of any moneys which may be from time to time appropriated by Act of Parliament, and put at his disposal for that purpose, to purchase for the purposes of this Act the whole or such parts as he shall think fit of the undertaking of any company;" but no agreement is to be binding until it has been laid, with a statement of the reasons for it, on the table of both Houses of Parliament without disapproval. The Atlantic, the British and Irish Magnetic, and the United Kingdom telegraph companies are specifically directed to be purchased on fixed terms; and they and other telegraph companies are empowered to sell their undertaking, under certain conditions specified, with a provision as to the appointments of their servants under the Government, or compensation by way of annuity. The Postmaster-General is to purchase the telegraph lines belonging to any railway companies open to the public on Jan. 1, 1868, and very specific directions are given as to such acquisition. In purchasing by agreement, a company is to be bound by two-thirds of the votes of shareholders present in person or by proxy at a special meeting. But when the Postmaster-General thus acquires the undertaking of one company he is to be bound for twelve months (if required) to purchase that of any other company upon terms to be settled (failing agreement) by an arbitrator to be appointed by the Board of Trade. The Postmaster-General is to transmit to their destination all messages of a railway company in any way relating to the business of the company in the United Kingdom free of charge. All matters of difference between the Postmaster-General and railway companies are to be settled by arbitration; and under certain circumstances the companies may require the Postmaster-General to purchase their undertaking. The sums to be received by the directors of Reuter's Telegram Company are to be applied in the first instance to the payment of the debts and liabilities of the company. There are provisions in the statute to enable the Postmaster to acquire the right of way over canals. The Post-office is to charge a uniform rate for transmission of messages throughout the United Kingdom without regard to distance, the rate not to exceed 1*s.* for twenty words, and 3*d.* for every additional five words, names and addresses of senders and receivers not to be counted, and the above charge to cover the cost of delivery by special foot messenger within one mile of the terminal office, or within its town postal delivery if it is a head office, and that delivery extends for more than a mile from it. When the

addressee does not reside within these limits, the message will be delivered free of charge by the next postal delivery, or, if the sender desires, by special foot messenger at a charge for porterage beyond such limits not exceeding 6*d.* per double mile. The payments for telegrams, except for porterage, are to be made in stamps. Special agreements, with the consent of the Treasury, may be made with newspaper proprietors, or the proprietors or occupiers of any news-room, club, or exchange-room, for the transmission and delivery of telegraphic messages at rates not exceeding 1*s.* for every 100 words between six P.M. and nine A.M., or 1*s.* for every 75 words between nine A.M. and six P.M. to a single address, with a charge of 2*d.* on both rates for transmission to additional addresses. The special use of a wire, with the like consent of the Treasury, may also be let to any newspaper proprietor or occupier "(during such period of twelve hours per diem as may be agreed upon), for the purposes of such newspaper, news-room, club, or exchange-room, at a rate not exceeding 500*l.* per annum;" but no one to have any advantage over another in respect of such rate. Messages which by previous Acts are entitled to priority of transmission are to have the word "priority" stamped or marked thereon by the Secretary of State or other Government official having the right to send such messages, which are to be retained by the Postmaster-General for at least a year. Payments for telegraphic messages within the United Kingdom (except for porterage) are to be made in stamps, of which the Postmaster-General is to cause a proper supply, and also of stamped paper, to be prepared and kept for sale at such offices as he may appoint. He may also arrange that messages (with the stamps) may be deposited in pillar letter-boxes, the telegrams to be despatched forthwith on their arrival with the letters at the postal telegraph-office, without extra charge. Any person who has official duties connected with the Post-office who shall disclose or intercept the contents of a telegraphic message is declared guilty of a misdemeanor, and liable upon conviction to imprisonment for a term not exceeding a year. All land or other property acquired by the Postmaster-General under this Act is to be rateable to local, municipal, and parochial rates, at sums not exceeding the rateable value at which they were assessed at the time of purchase. Copies of all contracts and agreements made under the Act are to be laid before Parliament. In the schedule annexed to the Act thirteen agreements with railways and telegraph companies are referred to, subject to the approbation of Parliament, and it declares it to be expedient that agreements should be made with other railways set forth, including the metropolitan districts. Three months' notice is to be given by the Postmaster-General to the companies. The last enactment is to the effect that if no Act be passed in the recent or next session of Parliament, putting at the disposal of the Postmaster-General such moneys as may be requisite for carrying into effect the objects and purposes of the Act, then the agreements made to be void, and the Postmaster to pay the expenses incurred.

SANITARY ACT AMENDMENT.

[31 and 32 Victoriæ, cap. 115.—July 31, 1868.]

An Act to Amend the Sanitary Act, 1866.

The power of Sewer Authorities is extended to the removal of house refuse, and the cleansing of privies, ashpits, and cesspools. They may also sanction, in certain cases, the substitution of earth-closets for water-closets; and further facilities are given for the recovery of penalties.

LARCENY AND EMBEZZLEMENT.

[31 and 32 Victoriæ, cap. 116.—July 31, 1868.]

An Act to amend the Law relating to Larceny and Embezzlement.

To provide against the frauds of partners, it is enacted that "if any person, being a member of any copartnership, or being one of two or more beneficial owners of any money, goods, or effects, bills, notes, securities, or other property, shall steal or embezzle any such money, goods, or effects, bills, notes, securities, or other property of or belonging to any such copartnership, or to such joint beneficial owners, every such person shall be liable to be dealt with, tried, convicted, and punished for the same as if such person had not been or was not a member of such copartnership, or one of such beneficial owners." The provisions of the 18 and 19 Vict. cap. 126, are also extended to embezzlement by clerks or servants. The Act does not extend to Scotland.

DISTRICT CHURCH TITHES ACT AMENDMENT.

[31 and 32 Victoriæ, cap. 117.—July 31, 1868.]

An Act to amend the District Church Tithes Act, 1865, and to secure Uniformity of Designation amongst Incumbents in certain Cases.

"The incumbent of the church of every parish or new parish for ecclesiastical purposes, not being a rector, who is and shall be authorized to publish banns of matrimony in such church, and to solemnize therein marriages, churchings, and baptisms, according to the laws and canons in force in this realm, and who is or shall be entitled to take, receive, and hold for his own sole use and benefit the entire fees arising from the performance of such offices, without any reservation thereout, shall, from and after the passing of this Act, for the purpose of style and designation but not for any other purpose, be deemed and styled the vicar of such church and parish or new parish, as the case may be, and his benefice shall for the same purpose be styled and designated a vicarage."

PUBLIC SCHOOLS.

[31 and 32 Victoriæ, cap. 118.—July 31, 1868.]

An Act to make further Provision for the good Government and Extension of certain Public Schools in England.

The preamble recites that the Commissioners appointed under a commission issued in 1861 had in their report "recommended various changes in the government, management, and studies of certain schools specified, with a view to promote their greater efficiency, and to carry into effect the main objects of the founders, but the changes could not be effected without the authority of Parliament." The schools treated of by the statute are Eton, Winchester, Westminster, the Charterhouse, Harrow, Rugby, and Shrewsbury. The existing governing body of each of the schools to which the Act applies may at any time before May 1, 1869, or within such further time as may be determined by her Majesty in Council, make statutes as to the constitution of the governing body, with power, in the case of Westminster, to establish a governing body for the school, including boys whether on the foundation or not, either wholly or partially distinct from the Dean and Chapter of Westminster; but from and after May 1, next, or such further time to be granted, all

powers of making statutes vested in the governing body of a school to pass to the special Commissioners mentioned in the statute. Any governing body established for Westminster School to be a corporate body with a common seal. The governing bodies of the schools set forth are to make statutes as to matters recited in the Act, and they have power to consolidate and amend the existing statutes and regulations, so as to remove local or other restrictions as to placing boys on the foundation, as to their ages, number, the exhibitions, scholarships, &c. All statutes made by the governing bodies of schools are to be forwarded to the special Commissioners, and to be laid before the Queen in Council, and her Majesty may approve or disapprove of the same. The new governing body are empowered, also, to make similar alterations, subject to the like approval; and all new statutes are to be published in the *London Gazette*. "The head master of every school to which this Act applies shall be appointed by, and hold his office at the pleasure of, the new governing body. All other masters shall be appointed by, and hold their office at the pleasure of, the head master. No candidate for any mastership shall be entitled to preference by reason of his having been a scholar of, or educated at, the school of which he desires to be the master." The Act is not to affect the existing rights as to persons residing at Harrow, nor of those residing within five miles of Rugby, nor of the burgesses of Shrewsbury, to send their children to the respective schools. The special Commissioners under the Act are—the Archbishop of York, the Marquis of Salisbury, the Right Hon. Russell Gurney, Sir John Lubbock, Sir John George Shaw Lefevre, Mr. John Duke Coleridge, and Mr. Charles Stuart Parker. The powers of the special Commissioners are to continue till the 1st of January, 1871, and may be continued for another year, and vacancies may be filled up. They are empowered "to require from any officer of any school to which this Act applies the production of any documents or accounts relating to such school, and information relating to the revenues, statutes, usages, or practices thereof."

To Westminster School the Ecclesiastical Commissioners are to pay an annual sum of not less than 3500*l.*, with a capital sum of 15,000*l.*, and as soon as convenient to transfer real estates to the governing body of not less clear annual value than 3500*l.* in lieu of the annuity. The 15,000*l.* is to enable the governing body to pay to the Dean and Chapter 10,000*l.* for three canonry houses in Dean's Yard "on the next avoidance," new houses for the canons to be built in the college garden, the remainder to be spent in erecting new buildings or improving the old. These are vested in the governing body, as also are, "for the use of the school, the playground in Vincent Square, with the lodge on such playground, the dormitory with its appurtenances, the school and classrooms, the houses and premises of the head master and under master, the three boarding-houses, and the gymnasium, excepting the crypts; all the said buildings shall be held by the said governing body for the use of the school, and it shall be incumbent on the said governing body to keep as an open space for the recreation of the boys, and for no other purpose, the said playground in Vincent Square: the hall and the playground in Dean's Yard shall continue to be used in the same manner as heretofore by the scholars of Westminster School." It is added: "In the event of Westminster School being removed beyond the city of Westminster, all the property and income derived by the school from the Ecclesiastical Commissioners, or the Dean and Chapter of Westminster, or their estates, shall revert and become vested in the Ecclesiastical Commissioners." A later clause, the last in the Act, adds: "subject

to the conditions in this Act contained with respect to the forfeiture of property, the governing body for the time, of Westminster School, may lay a scheme before her Majesty in Council for the removal of the school to some other site; and any such scheme shall be subject to the same provisions, and if approved, shall take effect, and be subject to alterations in the same manner as statutes made by a governing body."

Any of the schools named may, before January 1, 1870, lay before the Queen in Council schemes for making additions to, or alterations in, the buildings, and for raising money on mortgage for that purpose. Shrewsbury is empowered to sell the right of presentations to three livings, the money to be employed for the benefit of the school. The Provost of Eton is released from acting as vicar of the parish, and the college chapel is no longer to be the parish church; Eton is formed into a distinct vicarage, with an endowment of 600*l.* a year, and the patronage vested in the provost and fellows; the new governing body are empowered to prepare a scheme for running out their leases instead of renewing by fines, and adopting a system of letting at rack-rent, as is also Winchester College. Shrewsbury has power to remove the school to another site, after the scheme has the approval of the Privy Council, and for this purpose may suspend any scholarships or exhibitions payable out of their property; § 27 protects vested interests. The Governors of the Charterhouse are to bear the corporate name of "The Governors of Sutton's Hospital in Charterhouse;" but the change is not to affect their position in any way, nor to affect the recent Act empowering them to sell the site of the school, and erect another elsewhere. All the college chapels are to be deemed chapels dedicated and allowed by the Ecclesiastical Commissioners, and to be free from the jurisdiction or control of the incumbent of the parish in which such chapel is situated.

REGULATION OF RAILWAYS.

[31 and 32 Victoriæ, cap. 119.—July 31, 1868.]

An Act to amend the Laws relating to Railways.

After Dec. 1, 1868, every incorporated railway company is to prepare "a statement of accounts and balance sheet," at least seven days before the ordinary half-yearly meeting; this is to be printed and distributed in certain prescribed forms with estimates for the proposed expenditure out of capital for the ensuing half year, and any neglect in so doing involves a penalty not exceeding 5*l.* for every day during which such default continues. Every such statement of accounts is to be signed by the chairman and deputy-chairman of the directors, a printed copy is to be forwarded to the Board of Trade, a copy to be given to every stockholder, debenture-holder, or mortgagee, on application; and at all reasonable time any such person may demand to see the original, without payment, and "any company which acts in contravention of this section shall be liable for each offence to a penalty not exceeding 50*l.*" This is § 4; by § 5 "if any statement, balance-sheet, estimate, or report, which is required by this Act, is false in any particular to the knowledge of any person who signs the same, such person shall be liable, on conviction thereof on indictment to fine and imprisonment, or on summary conviction thereof to a penalty not exceeding 50*l.*" The Board of Trade are empowered to appoint inspectors to examine the affairs of any company and the conditions of its undertaking upon application of the directors, or of a certain proportion of stockholders, the application to be in writing, supported by evidence that there is good reason for the appli-

cation. When appointed, the directors and other officials are to produce to the inspectors all books and documents relating to the affairs of the company; the officials may be examined on oath, and any knowingly false statement is punishable as perjury. A refusal to give evidence or to produce any book or document hereby directed to be produced subjects the officer or agent so refusing to a penalty of 5*l.* for every day such refusal is continued. The report of the inspectors is to be made to the Board of Trade, the company is to have it printed, and given on application to every stockholder; the "expenses of and incidental to any such examination shall be defrayed by the persons upon whose application the inspectors were appointed, unless the Board of Trade shall direct the same, or any portion thereof, to be paid by the company, which they are hereby authorized to do." The company may also appoint its own inspectors, who are to have the like powers with those appointed by the Board of Trade. The Board of Trade, on application as above, may also appoint an auditor to act with the auditors of the company, and such auditors are no longer required to "have at least one share in the undertaking;" and "where there is a difference of opinion among such auditors, the auditor who so differs shall issue to the shareholders, at the cost of the company, such statement respecting the grounds on which he differs from his colleagues, and respecting the financial condition and prospects of the company, as he thinks may be material for the information of the shareholders." By § 13 "any company which in the year immediately preceding has paid a dividend on their ordinary stock of not less than 3 per cent. may, pursuant to the resolution of an extraordinary general meeting, divide their paid-up ordinary stock into two classes, to be called, the one preferred ordinary stock, and the other deferred ordinary stock," under certain prescribed conditions. By § 14 any company which books through to their destination animals, goods, or luggage, partly by rail and partly by sea, may exempt itself from the sea liabilities by giving notice of such conditions on the receipt or freight note. From Jan. 1, 1869 (§ 15), "every company shall cause to be exhibited in a conspicuous place in the booking-office of each station on their line a list or lists painted, printed, or written in legible characters, containing the fares of passengers by the trains included in the time-tables of the company from that station to every other place for which passenger tickets are there issued." Provision is made by subsequent clauses for securing equality of treatment where railway companies work steam-vessels, so that no difference is made for passengers on the steamboat between those who have come by the rail and those who have not; the particulars for charges on goods conveyed by the company are to be furnished; and where two lines are worked by one company, the calculation for charges and tolls are to be made as if they were one railway. In proceedings in cases of non-consumption of smoke, if the justices before whom the complaint is heard believe that although the engine may have been constructed on the principle of consuming its own smoke, yet through the default of the company or of any servant in its employment, it failed to consume its own smoke as far as practicable at the time charged, such company is to be deemed guilty of the offence. By § 20 "All railway companies, except the Metropolitan Railway Company, shall, from and after Oct. 1, 1868, in every passenger train where there are more carriages than one of each class, provide smoking compartments for each class of passengers, unless exempted by the Board of Trade." § 21 enacts that "any railway company that shall knowingly let for hire or otherwise provide any special train for the purpose of conveying parties to or to be present at any prize fight, or who shall

stop any ordinary train to convenience or accommodate any parties attending a prize fight at any place not an ordinary station on their line, shall be liable to a penalty, to be recovered in a summary way before two justices of the county in which such prize fight shall be held or shall be attempted to be held, of such sum not exceeding 500*l.*, and not less than 200*l.*, as such justices shall determine; one-half of such penalty to be paid to the party at whose suit the summons shall be issued, and the other half to be paid to the treasury of the county in which such prize fight shall be held or attempted to be held, in aid of the county rate; and the service of the summons under which the penalty is sought to be enforced on the secretary of the company at his office ten days before the day of hearing shall be sufficient to give the justices before whom the case shall come jurisdiction to hear and determine the case." § 22 "After the 1st of April, 1869, every company shall provide and maintain in good working order in every train worked by it which carries passengers and travels more than 20 miles without stopping, such efficient means of communication between the passengers and the servants of the company in charge of the train as the Board of Trade may approve. If any company makes default in complying with this section it shall be liable to a penalty not exceeding 10*l.* for each case of default. Any passenger who makes use of the means of communication without reasonable and sufficient cause shall be liable for each offence to a penalty not exceeding 5*l.*" Trespassers on railways are to be fined any sum not exceeding 40*s.* for each offence; and dangerous trees, on the order of two justices, may be removed, but compensation is to be awarded and to be paid by the company. § 25 provides that "where a person has been injured or killed by an accident on a railway, the Board of Trade, upon application in writing made jointly by the company from whom compensation is claimed and the person if he is injured or his representatives if he is killed, may, if they think fit, appoint an arbitrator, who is to determine the compensation, if any, to be paid by the company." The next clause enacts that "whenever any person injured by an accident on a railway claims compensation on account of the injury, any judge of the Court in which proceedings to recover such compensation are taken, or any person who by the consent of the parties, or otherwise, has power to fix the amount of compensation, may order that the person injured be examined by some duly qualified medical practitioner named in the order and not being a witness on either side, and may make such order with respect to the costs of such examination as he may think fit." §§ 27 to 29 contain the conditions on which light railways may be constructed and worked; and §§ 30 to 33 the regulations as to arbitrations under the direction of the Board of Trade. From §§ 34 to 47, the last, except §§ 41 to 43, contain the clauses and miscellaneous directions as to notices of meetings, application for certificate or Act; as to providing special trains for the Post Office exclusively, for applications for extension of powers, the interpretation of terms, extension of time, &c. chiefly to shareholders. The excepted clauses relate to compensation for land, and are as follows:—§ 41, "whenever, in the case of any lands purchased or taken otherwise than by agreement for the purpose of any public railway, any question of compensation in respect thereof, or any question of compensation in respect of lands injuriously affected by the execution of the works of any public railway, is, under the provision of the Lands Clauses Consolidation Act, 1845, to be settled by the verdict of a jury empanelled and summoned as in that Act mentioned; the company or the party entitled to the compensation may at any time before the issuing by the company to the sheriff as by that Act directed,

apply to a judge of any one of the superior Courts of Common Law at Westminster, who shall, if he think fit, make an order for trial of the question in one of the superior Courts upon such terms and in such manner as to him shall seem fit; and the question between the parties shall be stated in an issue to be settled in case of difference by the judge, or as he shall direct, and such issue may be entered for trial and tried accordingly in the same manner as any issue joined in an ordinary action at such place as the judge shall direct; and the proceedings to be under and subject to the control and jurisdiction of the Court as in ordinary actions therein, but so nevertheless that the jury shall, where the issue relates to the value of lands to be purchased, and also to compensation claimed for injury done to lands held therewith, deliver their verdict separately, in manner provided by § 49 of the Lands Clauses Consolidation Act, 1845. § 42. Whenever a company is called upon as liable under the provision of the Lands Clauses Consolidation Act, 1845, to issue their warrant to the sheriff in the case of any disputed compensation, and the company shall obtain a judge's order as in the last preceding section mentioned, the obtaining such an order and notice thereof to the opposite party shall be a satisfaction of the company's duty in respect of the issue of the warrant. § 43. The verdict of the jury and judgment of the Court upon any issue authorized by this Act shall, as regards costs and every other matter incident to or consequent thereon, have the same operation and be entitled to the same effect as if that verdict and judgment had been the verdict and judgment of a sheriff upon an inquiry conducted upon a warrant issued by the company under the Lands Clauses Consolidation Act, 1845." A number of schedules follow, containing the forms in which the accounts are to be uniformly kept.

SALE OF POISONS.

[31 and 32 Victoriæ, cap. 121.—July 31, 1868.]

An Act to regulate the Sale of Poisons, and alter and amend the Pharmacy Act, 1852.

The preamble declares it to be "expedient, for the safety of the public, that persons keeping open shops for the retailing, dispensing, or compounding of poisons, and persons known as chemists and druggists, should possess a competent practical knowledge of their business; and to that end, from and after the day herein named, all persons not already engaged in such business should, before commencing such business, be duly examined as to their practical knowledge, and that a register should be kept as herein provided;" and also that the Pharmacy Act, the 15 and 16 of Victoria, cap. 56, should be amended. It is here enacted that from and after Dec. 31, 1868, persons selling or compounding poisons, or assuming the title of chemists and druggists, must be registered unless they are pharmaceutical chemists, and must conform to such regulations as to the keeping, dispensing, and selling of such poisons as may from time to time be prescribed by the Pharmaceutical Society, with the consent of the Privy Council. Certain articles mentioned in a schedule annexed to the Act are stated to be poisons, and other articles may be declared to be poisonous likewise by the Pharmaceutical Society. Chemists and druggists within the meaning of the Act are to consist of all persons who at any time before its passing had carried on in Great Britain the business of a chemist and druggist, in the keeping of open shop; and also of all assistants and associates who before the passing of the Act were registered under the Pharmacy Act,

and also all such persons as may be registered under the present Act. Any person who at the time of the passing of the Act was of full age, and can produce to the registrar of the Pharmaceutical Society by Dec. 31, certificates as set forth in the schedule that he had been for a period of not less than three years actually engaged and employed in the dispensing and compounding of prescriptions as an assistant to a pharmaceutical chemist or to a chemist or druggist as defined by the Act, may, on passing such a modified examination as the Council of the Pharmaceutical Society, with the consent of the Privy Council, shall declare to be sufficient evidence of his skill and competency to conduct the business of a chemist and druggist, be registered as a chemist and druggist under this Act. Those entitled to be registered at the passing of the Act are to be registered without the payment of a fee. The examiners under the Pharmacy Act are to be examiners under the present one, and the registrar under the Pharmacy Act is to act under this statute. The Council of the Pharmaceutical Society are to make orders for regulating the register to be kept. Every registrar of deaths in Great Britain is required to give notice of the death of a pharmaceutical chemist. The evidence of qualification of persons to be registered is to be given to the registrar, and any appeal from his decision is to be to the Council of the Pharmaceutical Society. An annual register is to be published, and a printed copy certified under the hand of the registrar is to be received as evidence in all Courts; a wilful falsification of the register, or the obtaining registrations by false representation, is punishable by fine and imprisonment. By § 15, "from and after Dec. 31, 1868, any person who shall sell or keep an open shop for the retailing, dispensing, or compounding poisons, or who shall take, use, or exhibit the name or title of chemist and druggist, or chemist, or druggist, not being a duly registered pharmaceutical chemist, or chemist and druggist, or who shall take, use, or exhibit the name or title pharmaceutical chemist, pharmaceutist, or pharmacist, not being a pharmaceutical chemist, or who shall fail to conform with any regulation as to the keeping or selling of poisons made in pursuance of this Act, or who shall compound any medicines of the British Pharmacopœia except according to the formularies of the said Pharmacopœia, shall for every such offence be liable to pay a penalty or sum of 5*l*., and the same may be sued for, recovered, and dealt with in the manner provided by the Pharmacy Act for the recovery of penalties under that Act; but nothing in this Act contained shall prevent any person from being liable to any other penalty, damages, or punishment to which he would have been subject if this Act had not been passed;" nothing (§ 16) herein is to extend to the business of any legally qualified apothecary, nor to members of the College of Veterinary Surgeons, nor to makers or dealers in patent medicines, nor to wholesale dealers supplying poisons in the ordinary course of wholesale dealing; neither does registry under this Act entitle any person so registered to practise medicine or surgery. No poisons are to be sold either by wholesale or retail unless labelled, and poisons are not to be sold to any person unknown to the seller unless introduced by some person known to him, and before the delivery an entry is to be made in a book, and the signature of the purchaser attached, under a penalty not exceeding 5*l*. for the first offence, and not exceeding 10*l*. for subsequent offences. The next five clauses relate to the affairs of the Pharmaceutical Society. §§ 23 to 28 enact that persons registered under the Medical Act are not to be registered under this Act; that the Adulteration of Food Act is to extend to medicines; that from the passing of the Act all powers vested in the Secretary of

State by the Pharmacy Act are to vest in the Privy Council; that power be given to the Privy Council to erase the names of persons from the register; and that the statute, which is not to extend to Ireland, is to be cited as the Pharmacy Act, 1868. The list of poisons in the schedule comprise—arsenic and its preparations, prussic acid, cyanides of potassium and all metallic cyanides, strychnine and all poisonous vegetable alkaloïds and their salts, aconite and its preparations, emetic tartar, corrosive sublimate, cantharides, savin and its oil, ergot of rye and its preparations, oxalic acid, chloroform, belladonna and its preparations, essential oil of almonds unless deprived of its prussic acid, and all preparations of opium and poppies.

POOR RELIEF.

[31 and 32 Victoriæ, cap. 122.—July 31, 1868.]

An Act to make further Amendments in the Laws for the Relief of the Poor in England and Wales.

§§ 1 and 2 are regulations as to the deposit of General Orders or copies of orders, with the Houses of Parliament and the clerks of petty sessional divisions. § 3 repeals so much of § 2 of the Poor Law Amendment Act, 1867, as exempted the unions and parishes of the metropolis from its operation. § 4 confers upon the Poor Law Board "the powers contained in § 32 of the Poor Law Amendment Act, 1834, with respect to any union of parishes formed under the 22 George III. cap. 83, and with respect to any union governed by a local Act of Parliament, where the relief of the poor is not wholly administered by one Board of Guardians, without such concurrence of a majority of not less than two-thirds of the guardians of such union as is required in the said section; and every single parish in which the provisions of the statute of Geo. III. shall have been adopted, may be dealt with in like manner as any parish in which they shall not have been adopted;" and the consent of owners of property and ratepayers are also dispensed with in certain cases. § 5. Superintendent registrars and registrars in temporary districts are to retain their offices on the districts being dissolved, and the parishes and places therein formed into one and the same union. § 6. The Board may add any parish, the population of which does not exceed 300, to some adjoining parish for the purpose of the election of guardians, and (§ 7) may appoint any officer of the union, if the guardians fail to make such an appointment within 28 days after the receipt of a requisition from the Poor Law Board in that behalf. § 8 gives power to the Poor Law Board to order drainage works, furniture, surgical or other conveniences that may be considered necessary for any workhouse. By § 9 provision is made for vacancies and resignations of managers and guardians, and the section of the Metropolitan Poor Act, 1867, requiring them to be resident in the parish or union, is repealed. § 10. The consent of a majority of the guardians at an ordinary meeting, after a fortnight's notice in writing has been given, is to be sufficient for the formation of a school district; and (§ 11) after the 29th of September next all charges which, according to the Act of 1844, would have been made upon the common fund of any district formed under this Act, is to be borne by the several unions or parishes comprised in the district. § 12. In case of the severance from, or the addition to, of a parish from a union in a school district the Poor Law Board is to ascertain the proportionate value of the property and amount of obligations of such parish, and fix the amount to be paid or received accordingly. § 13. Guardians may,

with consent of the Poor Law Board, pay the cost of an idiotic pauper at an asylum for idiots; or any idiotic, imbecile, or insane pauper to the workhouse of any other union or parish, and pay for the maintenance, clothing, and lodging of the same, and for the removal thereto and for the burial. § 14, the provisions contained in § 23 of the Poor Law Amendment Act, 1867, are to apply to pauper lunatics sent to an asylum before the passing of that Act as well as since; and, (§ 15) those of § 20 are extended to any officer who may be deprived of his office or employment by the separation or addition of any parish to a union. § 16. Workhouse masters are to keep separate registers of the religious creeds of the inmates; and (§ 17) in the case of children under 12 years of age entries are to be made of the religious creed of the parents, or if the creed be not known that of the mother, if known, and in the case of illegitimate children that of the mother, if it can be ascertained. If any question arise as to the correctness of the entry (§ 18), the Poor Law Board are to decide. The creed register (§ 19) is to be open to the inspection of every minister of any denomination officiating in any registered place of worship which shall be nearest to the workhouse or school, at any hour between 10 and 4 in the day, except on Sunday; any such minister (§ 20) may, in accordance with the regulations of the board, "visit and instruct any inmate of such workhouse or school entered in such register as belong to the religious creed as such minister belongs to, unless such inmate, being above the age of 14, and after having been visited at least once by such minister, shall object to being instructed by him." By § 21 every inmate for whom no religious service according to his own creed is provided in the workhouse, will be enabled to go to his own place of worship on a Sunday or any other day required by his religion to be kept sacred, but permission may be withdrawn if abused, and of this withdrawal, with the grounds for it, an entry is to be made. § 22. No child in the workhouse or school visited by a minister of its own religion, shall be required to attend any other religious service, unless, being above 12 years of age, he shall desire to do so. § 23. The Act 25 and 26 Vict. cap. 43, § 14, is to apply to illegitimate as well as legitimate children, and the consent of the mother is to be sufficient, or if an orphan or deserted child, with no kindred or god-parent to make application, the Poor Law Board may exercise the power. § 24. So much of the Poor Law Amendment Act, 1864, as provides for the election of district auditors is to be repealed, and the Poor Law Board is to have the appointment of those officers in its own hands; notice of the appointment is to be inserted in the *London Gazette*, and no further proof or notice is to be required. § 25. Existing auditors may be superannuated under the provisions of the 22 Vict. cap. 26. By § 26 so much of the 6 and 7 Wm. IV., § 10, as gives the power of appointing a registrar to the Poor Law Commissioners is repealed, the appointment to be henceforth in the Board of Guardians. From Dec. 25, 1868, (§ 27) "every place which was or is reported to be extra-parochial, whether entered by name in the report upon the census for 1851 or not, for which an overseer has not been then appointed, or for which no overseer shall be then acting, or which has not been then annexed to or incorporated with an adjoining parish, shall for all civil parochial purposes be annexed to and incorporated with the next adjoining parish which has the longest common boundary; and in case there shall be two or more parishes with which it shall have boundaries of equal extent, then with that parish which now contains the lowest amount of rateable value; and every accretion from the sea, whether natural or artificial, and the part of the sea-shore to the low water-mark, and the

bank of every river to the middle of the stream, which, on Dec. 25 next, shall not be included within the boundaries of or annexed to and incorporated with any parish, shall for the same purposes be annexed to and incorporated with the parish to which such accretion, part, or bank adjoins, in proportion to the extent of the common boundary." The provisions (§ 28) of the Poor Law Amendment Act, 1848, empowering guardians of unions to cause valuations to be made, are extended to guardians of a parish not comprised in any union. § 29. Where an appeal is brought against the poor-rate of a parish in which some common principle appears to be involved, and in which neighbouring parishes may have a common interest, the guardians of the unions may combine to resist it and share the costs, such agreement to be binding on the several Boards of Guardians and their successors. § 30. When the assessment committee shall have finally approved of any valuation list, the columns are to be cast up for the gross estimated value and the rateable value to be ascertained and entered at the foot of the same; this is to be retained for the use of the guardians, and fair copies of it signed by three of the committee, are to be given to the overseers; and (§ 31) where such valuation list or the copy has been lost or destroyed, a certified copy from the clerk of the guardians is to be recognized as available. A valuer (§ 33) may be appointed by the guardians to assist the assessment committee, who is to be paid out of the common fund. § 33. If a married woman requires relief without her husband, the husband may be summoned to appear before the justices in petty session, to show why an order should not be made upon him to maintain his wife, and after receiving evidence an order may be made upon him to pay such sum weekly as shall appear to them proper, payment to be enforced according to the provisions of previous Acts. The addition (§ 34) or separation of a parish to a union is not to affect the acquired irremoveability of a poor person from the parish. The time (§ 35) limited for the repayment of loans borrowed under the Poor Law Amendment Act, 1834, is extended from 20 years to 30 years. The jurisdiction of justices (§ 36) to make orders of maintenance is to be exercised by them in petty sessions at their usual place of meeting, having jurisdiction in the union or parish to which the poor person is chargeable. § 37. "When any parent shall wilfully neglect to provide adequate food, clothing, medical aid, or lodging for his child, being in his custody, under the age of 14 years, whereby the health of such child shall have been or shall be likely to be seriously injured, he shall be guilty of an offence punishable on summary conviction, and being convicted thereof before any two justices shall be liable to be imprisoned for any period not exceeding six months, with or without hard labour, as such justices shall decide; provided that such justices may suspend the sentence until further notice if the offender enter into his own recognizances, with or without one or more sureties as the justices may think fit, to come up for judgment when called upon; and the guardians of the union or parish in which such child may be living shall institute the prosecution and pay the costs thereof out of their funds." § 38 provides for the rating of new houses or buildings. § 39 for demanding the rates due on land or premises where the occupier does not reside; § 40 for making the demand on a corporation or a company; and § 41 for receiving and recovering payments on an order made by the justices for the maintenance of bastard children. The guardians (§ 42) may, with the approval of the Poor Law Board, send any poor deaf and dumb or blind child to any school fitted for the reception of such child although the school be not certified; and (§ 43) any chronic lunatic, not being

dangerous, may be removed from a lunatic asylum to the workhouse upon such terms as may be agreed upon between the guardians and the committee of visitors of the asylum. By § 44 so much of the Act of 55 Geo. III. cap. 137, as renders churchwardens and overseers liable to a penalty for supplying goods, materials, or provisions for the use of a workhouse or the maintenance of the poor, is repealed. § 45 consolidates this Act with previous Acts, and § 46 gives the short title—The Poor Law Amendment Act, 1868.

INLAND REVENUE.

[31 and 32 Victoriæ, cap. 124.—July 31, 1868.]

An Act to amend the Laws relating to the Inland Revenue.

All fines, penalties, and forfeitures incurred under any Act relating to the Inland Revenue are to be henceforth paid without deduction to the Commissioners of Inland Revenue, and all costs attending prosecutions and the recovery of penalties, to be paid out of the supplies provided by Parliament. The conditions in distillers' bonds, specifying the time for using duty-free sugar is dispensed with or altered, and instead duty is to be paid on the deficiency in quantity of the sugar in stock. Methylated spirit may be sold by the maker in quantities of five gallons, instead of ten as heretofore, and a retailer may receive such spirit from another retailer in quantity not exceeding a gallon at one time. "From and after Sept. 1, 1868, where any leasehold estates form part of the estate and effects of a deceased person for or in respect of which probate or letters of administration is or are to be granted in England or Ireland, and such leasehold estates are the sole security by way of mortgage for any debts due and owing from the deceased, the amount of such mortgage debts may be deducted from the value of the said leasehold estates, and the stamp duty shall be chargeable on the value of the estate and effects for or in respect of which the probate or letters of administration shall be granted, after deducting therefrom the amount of such mortgage debts." The affidavit of value for the probate to be in a prescribed form. The arrears of legacy or succession duties, are to be paid with interest at the rate of 4 per cent., but the acceptance of arrears of duty is to be a waiver of penalties. The stamp duty on foreign and colonial bonds, not exceeding 25*l.*, is reduced to 8*d.* The exemption from stamp duties in favour of building societies is only to include a mortgage made by a member of a benefit building society for securing the repayment of the society, not exceeding 500*l.* The stamp duty on the transfer of debenture stock is fixed at 2*s.* 6*d.* for every 100*l.* or fraction thereof.

ELECTION PETITIONS.

[31 and 32 Victoriæ, cap. 125.—July 31, 1868.]

An Act for amending the Laws relating to Election Petitions, and providing more effectually for the Prevention of Corrupt Practices at Parliamentary Elections.

The Courts to have jurisdiction in the trial of Election Petitions are the Common Pleas at Westminster and the Common Pleas in Dublin. A petition is to be presented within twenty-one days after the return, unless there is an allegation of corrupt payments of money, in which case twenty-eight days are allowed, and security to be given for costs either by a recognizance for 1000*l.*, or by deposit of money, or partly by both. On a petition being presented a copy is to be sent to the returning officer of the place to which the petition relates, who is to publish

the same. Recognizances may be objected to within five days after the service of a notice on the petitioner; the objection may be removed by a deposit of a sufficient amount in money; but if the objection is not removed no further proceedings are to be taken on the petition. A list of petitions at issue is to be made as soon as may be in the order in which they are presented, open to inspection to any person on application.

The trial of every petition is to be conducted before one of the puisne judges at Westminster or Dublin to be selected from a rota. Her Majesty may appoint an additional puisne judge of each of the Courts in England, and an election petition is to be tried without a jury, and notice of the time and place of such trial to be given. The trial is to be held in the borough or county of the election, unless under special circumstances. At the trial evidences of corrupt practices may be received before proof of agency is given. The shorthand writer of the House of Commons (or his deputy) is to attend the trial and take down the evidence, which is to be sent to the Speaker with the judge's certificate. At the conclusion of the trial the judge is to certify his determination to the Speaker as to the election and alleged corrupt practices, and he may make a special report of any matter to be submitted to the House of Commons. The House is to carry out the report. The report so made is to be equivalent to the report of an election committee. The travelling expenses of the judge and other expenses are to be provided for by Parliament. Witnesses are to be indemnified as previously before committees, and their expenses paid. Then follow various provisions of a general character to carry the Act into force, as to the withdrawal of petitions, costs, &c. The punishment to a candidate on account of bribery is to prevent his election for seven years, or being a voter, or holding office, and a like punishment for employing a corrupt agent, and to any person found guilty of bribery. From and after the next dissolution of Parliament controverted elections are to be tried under this Act. The enactments enumerated in the schedule are to be repealed from and after the next dissolution. The additional judges and their officers are to be paid as the other judges. Any puisne judge "of the said Courts, appointed in pursuance of or after the passing of this Act, shall be authorized to sit, and shall, when requested by the Lord Chancellor, sit as a judge of the Court of Probate and Court of Marriage and Divorce, or of the Admiralty Court." Commissions of inquiry into corrupt practices may be issued, and the Crown may appoint Commissioners to inquire into the same. Any person who at the time of the passing of the Act was entitled to practise as an agent according to the rules of the House of Commons in election petitions, &c., is to be entitled to practise as an attorney or agent in all matters relating to elections before the Court and judge, and no person is to practise until his name is entered on a roll to be made and kept. There are certain modifications as to Scotland. The Act to take effect as to the presentation of petitions from the commencement of the next Parliament, and its duration is to be for three years from the passing and to the end of the then next Session.

DANUBE WORKS LOAN.

[31 and 32 Victoriæ, cap. 126.—July 31, 1868.]

An Act to enable her Majesty the Queen to carry into effect a Convention made between her Majesty and other Powers relative to a Loan for the Completion of Works of Improvement of the Navigation of the Danube.

A commission, to whom the tolls have been assigned, have been for

some time successfully employed in improving the Sulina mouths of the Danube, from the plans and under the superintendence of an English engineer. To complete the works, which is a matter of European interest, more money was needed; and to guarantee the re-payment, with interest, of a loan of 135,000*l.*, a convention for mutual guarantees was signed by the Emperor of Austria, the Emperor of the French, the Emperor of the Ottomans, the King of Prussia in the name of the North German Confederation, the King of Italy, and the Queen of Great Britain and Ireland with the consent of her Parliament, which this Act gives. The loan is to be made out of the British Consolidated Fund, and is to be repaid from the tolls. The accounts are to be laid yearly before Parliament.

COLONIAL SHIPPING.

[31 and 32 Victoriæ, cap. 129.—July 31, 1868.]

An Act to amend the Law relating to the Registration of Ships in British Possessions.

The governor or officer lawfully administering the government of a British possession may from time to time, with the approval of the Secretary of State, "make regulations providing that on an application for registration under the Merchant Shipping Act, 1854, in that possession, of any ship not exceeding 60 tons burden, the registrar may grant, in lieu of a certificate of registry as required by that Act, a certificate of registry to be terminable at the end of six months or of a longer period;" and "notwithstanding the Merchant Shipping Act, a ship registered under the new regulation is to be deemed a registered British ship." Surveyors may be appointed for the inspection of such ships, and the statute is to be read as one with the Merchant Shipping Act of 1854.

ARTIZANS' AND LABOURERS' DWELLINGS.

[31 and 32 Victoriæ, cap. 130.—July 31, 1868.]

An Act to provide better Dwellings for Artizans and Labourers.

The preamble states that "it is expedient to make provision for taking down or improving dwellings occupied by working men and their families which are unfit for human habitation, and for the building and maintenance of better dwellings for such persons." The Act is to apply to the metropolitan and other districts of the United Kingdom as set forth in a schedule. It provides for the appointment of officers of health where necessary, and "if any place to which this Act applies the officer of health finds that any premises therein are in a condition or state dangerous to health so as to be unfit for human habitation, he shall report the same in writing forthwith to the clerk of the Local Authority," and the Local Authority shall refer the same to a surveyor or engineer, who is to report as to the cause of the evil and the remedy for it. Copies of the reports are to be given to the owner "with notice of the time and place appointed by the Local Authority for the considerations thereof, and the owner shall be at liberty to attend and to state his objections (if any) to such reports, or either of them, including therein any objection that the necessary works ought to be done by or at the expense of some other person or persons, or at the expense of the parish or district in which the premises are situate;" if such objections are overruled the Local Authority may cause a plan and specification of the works required and

an estimate of the cost. The clerk of the Local Authority is to give notice to the owner of their having been prepared; the owner may again attend and state his objections, and may appeal against any order made to the next Court of Quarter Sessions; but the appeal must be made within a month from the date of the order, notice must be given to the clerk of the intention to appeal, with a statement of the ground of appeal; and within two days of the notice enter into recognizances with securities to abide the order and to pay such costs as may be awarded. When the appeal is on the ground of the liability of others, notice is to be given to them, and they may appear to defend themselves; if the decision is in favour of the owners, the clerk is to give notice to the parties found to be liable. On four or more householders living in or near to any street representing in writing to the officer of health that any premises in or near that street are in a condition or state dangerous to health, he is to inspect them and report, but the absence of any such representation is not to excuse him from inspecting any premises and reporting thereon. In the event of the Local Authority declining or neglecting for the space of three months after receiving such report to take any proceedings to put the Act in force, the householders who signed the representation may address a memorial to the Secretary of State, and he may direct the Local Authority to proceed under the Act. The owner, within three calendar months after the service of the order (within one month, if after an appeal) is to signify to the clerk whether he is willing to execute the required works. After regulating the service of notices, it is enacted that the owner on whom the order has been made "shall within two calendar months thereafter, commence the works as shown on the plan and described in the specifications, and shall diligently proceed with and complete the same in conformity with the specifications to the satisfaction of the surveyor or engineer appointed by the Local Authority," and in case of default, "the Local Authority shall, as the case may seem to them to require, either order the premises to be shut up, or to be demolished, or may themselves execute the required works." Where the Local Authority execute the works, they may apply to the Quarter Sessions for an order charging on the premises the amount of all costs and expenses in and about the execution of the works, and the Quarter Sessions, when satisfied of the amount so expended, is to make an order charging the property with the amount and 4 per cent. interest, which charge is to have priority over all other charges, and to be deemed a mortgage. If the requirements of the order involve the total demolition and not the improvement of the premises, the owner is within three months after the service of the order to remove the same, and if he fails, then the Local Authority is to execute the order and pay him any balance that may remain after the expenses from the sale of the materials. The Local Authority are to give notice to the tenants affected by their order as to the time at which their tenancy will be determined; but nothing in this Act is to prejudice the right of the owner to damages for any breach, non-observance, or non-performance of contract occurring prior to his taking possession. If the order be that the premises require improvement, the owner, if he think fit, may, instead of effecting the improvement, take down the premises; but in this case, as also where the order has been for the total demolishing of the premises, no building or erections shall be raised on the site which shall be injurious to health, and in case of non-compliance the Local Authority are empowered to abate or alter any such erection at the cost of the owner. Where there are two or more owners, and one fears the default of others may prejudice him, he may apply to any two justices, who

may, "if the applicant undertake to their satisfaction to bring the premises into conformity with such order, make an order empowering the applicant forthwith to take possession of the premises, and to do all such works as may be necessary for bringing the same into conformity with such order, and within such time as shall be fixed by such justices." Where an owner executes the work required by a Local Authority, he is to have an annuity as compensation for the expenditure incurred by him in the shape of a charging order. The annuity is to be 6*l.* for every 100*l.*, and to be payable for 30 years: the annuity to be recoverable as rent-charges in lieu of tithes. Every charging order on premises in Middlesex and Yorkshire is to be recorded in the Registry Office. The proprietor of any charge may assign the same by deed under seal with an *ad valorem* stamp. The expenses of the Local Authority are to be defrayed out of a special local rate not exceeding 2*d.* in the pound in any year; and power is given to the Public Works Loan Commissioners to advance money to any Local Authority for the purposes of this Act; but such loans must have the sanction of the Treasury. Any person obstructing the "officer of health or other person acting in the performance of anything which the Local Authority or their officers respectively, are by this Act required or authorized to do," every person so offending shall for every such offence forfeit a sum not exceeding 20*l.*; and a penalty of a like sum is imposed on the occupier preventing the owner, or on the owner or occupier preventing the officer of health or any other authorized officer or workman, from carrying the order into operation, for every day during which the delay is continued after ten days from the service of the order of the justices. The Local Authority may appear in any Court by their clerk, and any company or body corporate, by any member of their board of management. Penalties are recoverable by summary process; and the Act is extended to Scotland with very trifling modifications. Several schedules follow the Act. This was the last Act of the Session.

MEMORANDUM.

[The following are the titles of the Public Acts of the Session of 1868, not included in the foregoing Abstracts.]

1. To apply the sum of 2,000,000*l.* out of the Consolidated Fund to the service of the year ending March 31, 1868.

3. To confirm a provisional order under the Drainage and Improvement of Lands (Ireland) Act, 1863, and the Acts amending the same.

9. To regulate the disposal of extra Receipts of Public Departments.

10. To apply the sum of 362,398*l.* 19*s.* 9*d.* out of the Consolidated Fund to the service of the years ending March 31, 1867, and March 31, 1868.

11. To amend an Act to make further provision for the despatch of business in the Court of Appeal in Chancery.

12. To facilitate the alteration of days upon which, and of places at which, fairs are now held in Ireland.

13. To apply the sum of 6,000,000*l.* out of the Consolidated Fund to the service of the year ending March 31, 1869.

15. For the regulation of her Majesty's Royal Marine Forces while on shore.

16. To apply the sum of 17,000,000*l.* out of the Consolidated Fund to the service of the year ending March 31, 1869.

18. To give further time for making certain railways.

19. For declaring valid certain orders of her Majesty in Council

relating to the Ecclesiastical Commissioners for England, and to the deans and chapters of certain churches.

20. To enable persons in Ireland to establish legitimacy and the validity of marriages, and the right to be deemed natural-born subjects.

21. To provide compensation to officers of certain discontinued prisons.

22. To amend the law relating to places for holding petty sessions and to lock-up houses for the temporary confinement of persons taken into custody and not yet committed for trial.

23. To render valid marriages heretofore solemnized in the chapel of ease of Frampton Mansel in the parish of Sapperton in Gloucestershire.

26. To enable certain guaranteed Indian railway companies to raise money on debenture-stock.

27. For raising the sum of 1,600,000*l.* by Exchequer Bonds for the service of the year ending March 31, 1869.

29. To amend the law relating to medical practitioners in the colonies.

30. To amend the Act of the 7 and 8 Vict. cap. 44, relating to the formation of *quoad sacra* parishes in Scotland, and to repeal the Act of the 29 and 30 Vict. cap. 77.

31. To amend the Act passed in the Session of Parliament held in Ireland in the 39 Geo. III., intituled, An Act for the better Regulation of Stockbrokers.

33. For the collection and publication of cotton statistics.

34. To alter some provisions in the existing acts as to registration of writs in certain registers in Scotland.

35. To extend the provision in the Duchy of Cornwall Management Act, 1863, relating to permanent improvements.

36. To make perpetual the Alkali Act, 1863.

38. For the appropriation of certain unclaimed shares of prize money acquired by soldiers and seamen in India.

41. To make provision in the case of boroughs ceasing to return members to serve in Parliament respecting rights of election which have been vested in persons entitled to vote for such members.

42. To amend the Act of the 23 and 24 Vict. cap. 50, by abolishing the rate imposed by the said Act on all occupiers of premises within the extended municipal boundaries of the city of Edinburgh.

43. For extending the provisions of the Thames Embankment and Metropolis Improvement (Loans) Act, 1864, and for amending the powers of the Metropolitan Board of Works in relation to loans under that Act.

50. To amend the Acts for the administration of prisons in Scotland in so far as regards Lanarkshire.

53. To continue in force an Act of the 2 Geo. II. cap. 19, for the better regulation of the Oyster Fishery in the river Medway.

54. To render judgments or decreets obtained in certain Courts in England, Scotland, and Ireland respectively effectual in any other part of the United Kingdom.

55. To provide for the collection by means of stamps of fees payable in the supreme and inferior Courts of Law in Scotland, and in the offices belonging thereto; and for other purposes relative thereto.

57. To make provision for the appointment of members of the Legislative Council of New Zealand, and to remove doubts in respect of past appointments.

59. To amend the law relating to Reformatory Schools in Ireland.

60. To make better provision for the management and use of the Curragh of Kildare.

61. For removing doubts as to the validity of certain marriages between British subjects in China and elsewhere, and for amending the law relating to the marriage of British subjects in foreign countries.

62. To extend the provisions of the Renewable Leasehold Conversion (Ireland) Act to certain leasehold tenures in Ireland.

63. To enable Commissioners appointed to inquire into the failure of the Bank of Bombay to examine witnesses on oath in the United Kingdom.

64. To improve the system of registration of writs relating to heritable property in Scotland.

66. To confirm certain provisional orders made under an Act of the 15 Vict. to facilitate arrangements for the relief of turnpike trusts.

68. To facilitate liquidation in certain cases of bankruptcy arrangement and winding-up.

70. To amend the Railways (Ireland) Act, 1851, the Railways (Ireland) Act, 1860, and the Railways (Ireland) Act, 1864, as to the trial of traverses.

74. To extend the powers of Poor-Law inspectors and medical inspectors in Ireland.

76. To defray the charge of the pay, clothing, and contingent and other expenses of the disembodied militia in Great Britain and Ireland; to grant allowances in certain cases to subaltern officers, adjutants, paymasters, quartermasters, surgeons, assistant surgeons, and surgeons mates of the militia; and to authorize the employment of the non-commissioned officers.

78. To amend the law relating to proceedings instituted by the Admiralty; and for other purposes connected therewith.

80. To amend the Contagious Diseases Act, 1866.

81. To authorize loans of public money to the Portpatrick and the Belfast and County Down Railway Companies, and a payment to the Portpatrick Company in consequence of the abandonment of the communication between Donaghadee and Portpatrick.

82. To abolish the power of levying the assessment known as rogue money, and in lieu thereof to confer on the Commissioners of Supply of counties in Scotland the power of levying a county general assessment.

84. To amend in several particulars the law of entail in Scotland.

85. To apply a sum out of the Consolidated Fund and the surplus of ways and means to the service of the year ending March 31, 1869, and to appropriate the supplies granted in this session of Parliament.

88. For transferring the fee and other funds of the Courts of Chancery and Exchequer in Ireland to the Consolidated Fund.

89. To alter certain provisions in the Acts for the Commutation of Tithes, the Copyhold Acts, and the Acts for the Inclosure, Exchange, and Improvement of Land; and to make provision towards defraying the expense of the Copyhold, Inclosure, and Tithe Office.

91. To settle an annuity upon Lieutenant-General Sir Robert Napier, G.C.B., G.C.S.I., and the next surviving heir male of his body, in consideration of his eminent services.

92. To declare the powers of the General Assembly of New Zealand to abolish any province in that colony, or to withdraw from any such province any part of the territory thereof.

93. To remove doubts respecting the operation of the New Zealand Company's Act of the 9 and 10 Vict. cap. 382 (local and personal).

94. To authorize the further extension of the period for re-payment of advances made under the Railway Companies (Ireland) Temporary Advances Act, 1866,

95. To amend the procedure in the Court of Justiciary and other Criminal Courts in Scotland.

96. To amend the procedure in regard to Ecclesiastical Buildings and Glebes in Scotland.

97. To make provision for the audit of accounts of District Lunatic Asylums in Ireland.

98. To make provision for the payment of salaries to Clerks of the Peace and Clerks of the Crown in certain boroughs in Ireland.

99. To continue certain Turnpike Acts in Great Britain, to repeal certain other Turnpike Acts, and to make further provision concerning turnpike roads.

100. To amend the procedure in the Court of Session and the Judicial Arrangements in the Superior Courts of Scotland, and to make certain changes in the other Courts thereof.

101. To consolidate the Statutes relating to the constitution and completion of titles to heritable property in Scotland, and to make certain changes in the law of Scotland relating to heritable rights.

102. To alter the qualifications of the electors in places in Scotland under the General Police and Improvement (Scotland) Act, 1862, or under the Act 13 and 14 Vict. cap. 33, and to amend the said Acts in certain other respects.

105. For enabling her Majesty to accept a surrender upon terms of the lands, privileges, and rights of the Governor and Company of Adventurers of England trading into Hudson's Bay, and for admitting the same into the dominion of Canada.

107. To amend the law relating to the indorsing of warrants in Scotland, Ireland, and the Channel Islands.

108. To amend the laws for the election of the magistrates and councils of royal and parliamentary burghs in Scotland.

111. To continue various expiring laws.

112. To amend the law of registration in Ireland.

113. To render valid marriages heretofore solemnized in the chapel of ease called Saint James-the-Greater Chapel, Blakedown, in the parish of Hagley in Worcestershire.

114. To amend the law relating to the Ecclesiastical Commissioners for England.

120. To relieve the Consolidated Fund from the charge of the salaries of future bishops, archdeacons, ministers, and other persons in the West Indies.

123. To amend the law relating to Salmon Fisheries in Scotland.

127. To prevent the removal of the tower of the church of Saint Mary Somerset in the city of London, and for vesting the said tower and the site thereof, and a portion of the burial ground attached to the said church, in the corporation of the said city.

128. To extend the provisions of the Act 28 and 29 Vict. cap. 113, to persons who have held the office of Lord High Commissioner of the Ionian Islands.

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I.—Finance.

1. An Account of the Gross Public Income of the United Kingdom of Great Britain and Ireland, in the Year ended December 31, 1867, and of the actual Issues within the same period.

INCOME OR REVENUE.

Ordinary Revenue.

	£	s.	d.
Customs	22,630,000	0	0
Excise	19,955,000	0	0
Stamps	9,597,000	0	0
Taxes (Land and Assessed)	3,484,000	0	0
Property Tax	5,266,000	0	0
Post Office	4,630,000	0	0
Crown Lands (Net)	337,000	0	0

Other Receipts.

Military and Naval extra Receipts and proceeds of Old Stores	793,221	8	4
Received from the Revenues of India on account of British Troops serving in that country	830,250	0	0
Allowance out of Profits of Issue received from the Bank of England, per Act 24 Vict. c. 3	138,578	0	0
Miscellaneous Receipts	752,281	16	7
China War Indemnity	250,184	0	0
Total Revenue	£68,663,515	4	11
Excess of Expenditure	1,265,540	12	0
	£69,929,055	16	11

EXPENDITURE.

Funded Debt.

	£	s.	d.
Interest and Management of the Permanent Debt	22,998,333	6	2
Terminable Annuities	2,790,360	1	4
Interest of Exchequer Bonds	87,250	0	0
Interest of Exchequer Bills	189,419	15	0

Charges on Consolidated Fund.

Civil List	406,281	5	0
Annuities and Pensions	286,012	17	5
Salaries and Allowances	147,918	7	10
Diplomatic Salaries and Pensions	176,232	0	5
Courts of Justice	673,977	1	9
Miscellaneous Charges	192,814	1	4

Supply Services.

Army	16,272,902	8	5
Navy	11,477,076	7	0
Miscellaneous Civil Services	8,103,261	11	9
Salaries, Superanns. &c. of Customs & Inland Revenue	2,503,203	13	4
Ditto ditto of Post Office	2,433,019	6	5
Packet Service	760,993	13	9
Expenses of Fortifications	430,000	0	0
Total Expenditure	£69,929,055	16	11

2. **THE REVENUE.—AN ABSTRACT of the GROSS PRODUCE of the REVENUE of the UNITED KINGDOM, in the undermentioned periods, ended September 30, 1868, compared with the corresponding periods of the preceding Year.**

—	Quarters ended				Year ended Sept. 30, 1867.	Quarters ended				Year ended Sept. 30, 1868.
	Dec. 31, 1866.	March 31, 1867.	June 30, 1867.	Sept. 30, 1867.		Dec. 31, 1867.	March 31, 1868.	June 30, 1868.	Sept. 30, 1868.	
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Customs	5,964,000	5,527,000	5,499,000	5,502,000	22,492,000	6,102,000	5,547,000	5,453,000	5,488,000	22,590,000
Excise	5,471,000	5,535,000	5,028,000	4,300,000	20,334,000	5,092,000	5,742,000	4,857,000	4,184,000	19,875,000
Stamps	2,308,000	2,554,000	2,547,000	2,200,000	9,609,000	2,296,000	2,498,000	2,372,000	2,084,000	9,250,000
Taxes	1,358,000	389,000	1,506,000	272,000	3,525,000	1,317,000	414,000	1,476,000	300,000	3,507,000
Property Tax . .	1,314,000	2,156,000	1,577,000	648,000	5,695,000	885,000	3,067,000	2,269,000	1,060,000	7,281,000
Post Office	1,140,000	1,100,000	1,150,000	1,200,000	4,590,000	1,180,000	1,100,000	1,120,000	1,190,000	4,590,000
Crown Lands . . .	95,000	93,000	72,000	72,000	332,000	100,000	101,000	73,000	73,000	347,000
Miscellaneous . .	682,935	1,087,871	402,925	719,740	2,893,471	553,980	909,574	664,003	740,005	2,867,562
Totals . . .	18,332,935	18,441,871	17,781,925	14,913,740	69,470,471	17,525,980	19,378,574	18,284,003	15,119,005	70,307,562

AN ACCOUNT showing the REVENUE and other RECEIPTS of the Quarter ended Sept. 30, 1868, the Application of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

	£.
Surplus Balance beyond the Charge of the Consolidated Fund, for the Quarter ended June 30, 1868, viz.:—Ireland	728,506
Income received, as shown above	15,119,005
Amount raised by Exchequer Bonds, issued per Act 31 and 32 Vict. cap. 27	1,000,000
Amount raised on Account of Fortifications, &c., per Acts 28 and 29 Vict. cap. 61, and 30 and 31 Vict. cap. 145	225,000
Amount received in repayment of Advances for Public Works, &c.	359,713
Ditto, for New Courts of Justice	4,000
Balance, being the deficiency on Sept. 30, 1868, upon the Charge of the Consolidated Fund in Great Britain, to meet the Dividends and other Charges payable in the Quarter to Dec. 31, 1868	3,007,408
	£20,443,632

	£.
Deficiency of the Income of the Consolidated Fund in Great Britain in the Quarter to June 30, 1868	4,129,639
Amount applied out of the Income to Supply Services . . .	9,109,230
Amount advanced for New Courts of Justice	15,000
Charge of the Consolidated Fund for the Quarter, viz.:—	
Interest of the Permanent Debt	5,030,727
Terminable Annuities	1,063,324
Interest of Exchequer Bonds	26,750
Interest of Exchequer Bills	21,553
Interest of Advances on Account of Deficiency . .	2,850
The Civil List	101,383
Other Charges on Consolidated Fund	575,921
Advances for Public Works, &c.	221,295
Surplus Balance in Ireland, for the Quarter ended Sept. 30, 1868	145,960
	£20,443,632

3. Revenue of Ireland.—The gross revenue of Ireland in the year ending March 31, 1868, amounted to 6,843,300*l.*, an increase of 22,568*l.* over the revenue of the previous year. The receipt from customs duties increased from 2,141,000*l.* to 2,146,000*l.*; the excise receipts decreased from 3,393,000*l.* to 3,376,000*l.*; the receipt from stamps increased from 571,459*l.* to 591,971*l.*; income tax from 359,593*l.* to 362,580*l.*; post-office from 319,554*l.* to 330,357*l.*; miscellaneous, from 36,125*l.* to 36,390*l.* The net produce paid into the exchequer increased from 6,122,125*l.* to 6,176,390*l.* The expenditure of the exchequer in Ireland for the army in the financial year 1867-68 was 3,560,000*l.*, an increase of 535,000*l.* over the expenditure in the previous year. The expenditure of the exchequer in Ireland for miscellaneous civil services increased from 1,495,152*l.* to 1,594,524*l.*

4. Cornwall, Duchy of.—The revenue for the year ending Dec. 31, 1867, was 82,687*l.*, exclusive of the balance in hand from 1866 of 8,099*l.* Of this income 54,677*l.* arose from the profits of courts, royalties of coal-mines, quarries, sale of wood, &c.; 16,216*l.* from the Consolidated Fund in lieu of tin coinage duties, &c.; 1,785*l.* from dividends on stock; and 8*l.* from interest on balance of money expended in the purchase of the toll tin lease and expenses and repayments from capital. The expenditure was 72,151*l.*, of which 54,927*l.* were paid to the treasurer of the Prince of Wales; 1,689*l.* in repairs, improvements, and purchases; 5,138*l.* in deductions and allowances to tenants; 2,866*l.* in superannuations, charities, law-charges, &c.; 7,530*l.* for expenses of management; and 8,635*l.* remained in the hands of bankers or agents. The capital account shows a balance of 58,493*l.* in 3 per cent. stocks, and 24,966*l.* in cash.

5. Lancaster, Duchy of.—The total receipts from rents, royalties, &c., in 1867, amounted to 48,796*l.*; the disbursements were—29,000*l.*, paid over to the Keeper of her Majesty's Privy Purse; 8,570*l.* for salaries, superannuations, &c.; 2,050*l.* for donations and charities; 1,245*l.* for the restoration of the Savoy Chapel; 5,168*l.* balance in hand, as against 4,535*l.* at the beginning of the year; and the remainder for taxes, law-charges, repairs, surveys, &c. On the capital account 5,260*l.* had been expended in the purchase of land and in erecting farm-buildings, &c.; and 34,350*l.* was invested in consols.

6. Revenue, Isle of Man.—The net revenue for the year ending March 31, 1867, amounted to 44,390*l.*, the total expenditure to 34,945*l.*, leaving a balance due to the island of 9,444*l.* The items of expenditure include 3,145*l.* for effective and non-effective charges; 12,167*l.* for the Civil List; 2,300*l.* for harbours; 3,785*l.* for one-ninth and two-ninths parts of net revenue; and 10,000*l.* interest of loan on Port Erin and payment to exchequer. Payments were also made on account of education, coastguard, volunteers, and Board of Works departments, amounting collectively to 3,546*l.*

7. Gross Amount produced by Customs Duties upon the Principal and other Articles of Foreign and Colonial Merchandize, in the Year 1867.

Chicory, raw, or kiln-dried	£112,650
Cocoa	19,115
Coffee:—From British Possessions out of Europe	328,175
From Foreign Countries	66,433
Corn:—Wheat	436,106
Barley	71,772
Oats	118,994
Peas	19,949
Beans	24,963
Indian Corn or Maize	107,153
Wheat Meal and Flour	67,783
Other kinds of Grain and Meal	8,041
Fruits:—Currants	265,562
Figs	29,349
Raisins	109,494
Spirits:—Rum	2,192,637
Brandy	1,659,707
Geneva	66,910
Other sorts	378,329
Sugar, unrefined:—From British Possessions in America	1,776,962
From Mauritius	271,575
From British Possessions in the E. Indies and S. Africa	180,162
From Foreign Countries	3,061,368
Sugar, Refined, and Candy:—	
From British Possessions out of Europe	£839
From Foreign Countries	469,421
Sugar, Molasses: From British Possessions out of Europe	22,593
From Foreign Countries	33,525
Tea	2,776,479
Tobacco:—Stemmed	2,881,496
Unstemmed	3,436,756
Manufactured, and Snuff	231,884
Wine:—In casks: under 26 dgs.	125,364
,, under 42 dgs.	1,218,175
In bottles: under 26 dgs.	70,821
,, under 42 dgs.	7,229
In casks or bottles:	
Under 26 dgs.	..
Under 42 dgs.	..
42 dgs. and upwards	3,620
Other Articles	32,892
Total	£22,684,283
The drawbacks and allowances on quantities over-entered, damaged, &c., was	249,508
Net Produce, not deducting charge for collecting	£22,434,775

8. INCOME TAX.—In 1866 the total amount of property and profits charged to income tax was 374,004,004*l.*; of which 316,334,476*l.* was in England and Wales, 32,309,138*l.* in Scotland, and 25,273,390*l.* in Ireland. Schedules A. and D. furnished the largest sums. In England A. had advanced from 92,329,889*l.* in 1854 to 100,366,749*l.* in 1866; schedule D. from 68,384,051*l.* to 135,153,248*l.* In Scotland, schedule A. had advanced from 11,301,813*l.* in 1854 to no more than 11,842,035*l.* in 1866; but in schedule D. the advance had been from 6,858,865*l.* to 15,644,661*l.* In Ireland, schedule A. had advanced from 11,892,120*l.* in 1854 to 12,892,456*l.* in 1866: and in D. from 4,445,891*l.* to 7,031,293*l.* Trade and labour in each country increasing much more rapidly than land or real property.

9. FINANCE OF INDIA.—The finance accounts of India for the fiscal year 1867-68, ending March 31, 1868, the financial year of India now coinciding with that of the United Kingdom, show that the receipts amounted to 48,363,269*l.*, reduced by 9,227,311*l.* for the charges of collection, cost of salt and opium, for allowances under treaties and engagements, and for allowances to district officers. The land revenues and tributes are stated at 23,467,700*l.*; customs, 2,545,200*l.*; salt, 6,024,300*l.*; opium, 8,814,200*l.*; stamps, 2,193,900*l.*; post-office, 652,300*l.*; telegraphs, 298,916*l.*; and licence tax, 658,000*l.* The ordinary expenditure for the year was 46,748,146*l.*, giving a surplus to the income, but a charge of 2,761,200*l.*, for extraordinary public works, occasioned a deficiency on the whole of 1,105,077*l.* The chief items of the expenditure were—Army, 16,390,157*l.*; interest of debt and guaranteed interest, 6,928,711*l.*; public works, ordinary, 3,794,888*l.*; extraordinary, 2,761,200*l.*; marine, 882,535*l.*; education, science, and art, 786,200*l.*; ecclesiastical, 155,500*l.*; police, 2,383,200*l.*; administration and public departments, 1,250,441*l.*; law and justice, 2,488,900*l.*; other payments (superannuations, political agencies, and miscellaneous), 2,420,283*l.*; but some of these items may be subject to deduction.

10. TAXES REDUCED OR INCREASED.—In 1867, the stamp on Marine Insurances was reduced to an uniform rate of 3*d.* per cent., involving an estimated reduction of 210,000*l.*; and the tax on dogs was transferred from the Assessed Taxes to the Excise office, at a reduced rate. The income tax was increased by an additional penny on the last half year. The total reductions were estimated at 315,000*l.*; the additions at 1,600,000*l.*

11. NATIONAL DEBT.—The amount of the National Debt on March 31, 1868, was, of the unredeemed funded debt, 741,190,328*l.*; the estimated capital of terminable annuities was 47,930,222*l.*, and of the unfunded debt 7,911,100*l.*: a total of 797,031,650*l.*; and a decrease of 3,817,197*l.* from the total of the previous year.

12. LOCAL TAXATION.—In 1865, the rateable value of property in England and Wales, was 90,137,365*l.*, of which 14,020,400*l.* was in the metropolis; 58,826,115*l.* in the counties, and 17,289,850*l.* in cities and muncipal boroughs. The amount of local taxes raised in the year was 14,966,751*l.*; of which 9,392,193*l.* was for poor rates, 2,007,962*l.* for highway rates, 243,523*l.* for church rates, 180,802*l.* for police and prisons (much of the police rate is included in the poor rate, and under the head of drainage, lighting, watching, &c.), drainage, lighting, watching, &c., 2,811,330*l.*, and local boards, 330,941*l.* Of the whole, 2,838,775*l.* was raised by the metropolis, 7,841,614*l.* by the counties, and 4,286,362*l.* by cities and municipal boroughs.

II.—CURRENCY.

13. BULLION.—In 1867, there was imported gold to the value of 15,800,159*l.*, and silver to the value of 8,020,888*l.* Of the gold, the United States furnished 5,026,185*l.*; Australia, 5,801,207*l.*, a decrease of more than a million from the preceding year; France, 387,319*l.*, a decrease of more than 2½ millions; Mexico, South America (exclusive of Brazil, which sent 615,318*l.*), and the West Indies, 2,808,367*l.* From British Columbia none came direct, and from British North America only 138,345*l.* Of the silver, 5,032,495*l.* was furnished by Mexico, South America, and the West Indies; 1,001,143*l.* by France; 1,471,821*l.* by the United States, and 162,003*l.* by the Hanse Towns. The exports of gold amounted to 7,889,030*l.*, of which 6,034,340*l.* went to France; 170,436*l.* to the Hanse Towns: 306,464*l.* to Brazil; and 241,919*l.* to Egypt. Of the silver, the total exports amounted to 6,435,487*l.*, of which 260,716*l.* in coin, chiefly for China, and 386,609*l.* in bullion, chiefly for India, were sent to Egypt; 2,190,308*l.* to France; 1,092,573*l.* to Holland: 1,110,626*l.* to the Hanse Towns; 1,140,412*l.* to Belgium; and 95,297*l.* to Brazil. In the year, the Bank of England bought gold to the amount of 5,169,135*l.*, and sold to the amount of 2,548,577. No silver was either bought or sold.

14. COINAGE.—In 1867 there were no sovereigns coined, and only 992,795 half-sovereigns. In silver there were coined 423,720 florins; 2,166,120 shillings; 1,362,240 sixpences; 4,158 fourpences: 717,288 threepences; 4,752 twopences; and 7,920 pence —total of silver, 193,841*l.* 9*s.* 6*d.* In bronze, there were coined, 5,483,520 pence; 2,508,800 halfpence; and 5,017,600 farthings—total of bronze, 33,301*l.* 0*s.* 8*d.*—a smaller amount of coinage than has been issued for many years. Worn silver coin was purchased from the Bank of England at the nominal value of 120,000*l.*, and a loss of 16,561*l.* was suffered on its re-coinage.

15. STATEMENT of the AFFAIRS of the BANK of ENGLAND from the Weekly Returns of the undermentioned dates in 1867 and 1868.

	Nov. 6,'67.	Jan. 29,'68.	May 20.	July 15.	Oct. 14.
ISSUE DEPARTMENT.	£.	£.	£.	£.	£.
DR.—Notes issued	36,217,500	36,203,520	34,467,860	35,966,000	34,083,870
CR.—Government Debt	11,015,100	11,015,100	11,015,100	11,015,100	11,015,100
Other Securities	3,984,900	3,984,900	3,984,900	3,984,900	3,984,900
Gold Coin and Bullion . . .	21,217,500	21,203,520	19,467,860	20,966,000	19,083,870
Total	36,217,500	36,203,520	34,467,860	35,966,000	34,083,870
BANKING DEPARTMENT.					
DR.—Proprietors' Capital . . .	14,553,000	14,553,000	14,553,000	14,553,000	14,553,000
Rest	3,061,535	3,300,352	3,111,556	3,279,556	3,081,950
Public Deposits	5,396,899	3,545,269	6,041,006	3,359,776	3,838,119
Other Deposits.	18,746,986	22,523,345	20,320,946	22,080,000	20,231,481
Seven Days' and other Bills .	647,807	607,733	479,725	556,663	701,897
Total	42,406,227	44,529,699	44,506,233	43,828,995	42,406,447
CR.—Government Securities. .	12,891,203	14,068,246	13,277,696	14,614,394	15,935,874
Other Securities	16,788,642	16,616,358	19,364,724	16,904,426	15,822,238
Notes.	11,610,585	12,728,990	10,542,710	11,089,640	9,567,955
Gold and Silver Coin	1,115,797	1,116,105	1,321,103	1,220,535	1,080,380
Total	42,406,227	44,529,699	44,506,233	43,828,995	42,406,447

16. NOTE CIRCULATION of the UNITED KINGDOM for the Months ending at the following dates in 1867 and 1868.

	Nov. 9, '67.	Feb. 1, '68.	May 23.	July 18.	Oct. 10.
	£.	£.	£.	£.	£.
Bank of England .	24,755,193	23,975,506	24,127,392	24,514,516	24,063,746
Private Banks . .	2,966,089	2,870,190	2,826,202	2,619,087	2,778,438
Joint Stock Banks .	2,418,888	2,337,959	2,396,919	2,213,123	2,310,056
Scotland	4,741,869	4,490,799	4,812,799	4,559,566	4,671,029
Ireland	6,544,270	6,073,729	6,239,213	5,660,121	6,497,474
Total	41,426,309	39,748,183	40,402,525	39,566,413	40,320,743

III.—TRADE.

17. IMPORTS of the PRINCIPAL ARTICLES of FOREIGN and COLONIAL MERCHANDIZE in the Year ended December 31, 1867, with the COMPUTED REAL VALUE.

ARTICLES FREE OF DUTY.		Imported.	Computed Real Value.
Animals, Living:—Oxen, Bulls, and Cows .	number	156,079	£3,054,310
Calves	,,	21,592	
Sheep and Lambs	,,	540,326	945,661
Swine and Hogs	,,	48,083	..
Ashes, Pearl and Pot	cwts.	78,532	..
Bark for Tanners' or Dyers' use . . .	,,	504,713	..
,, Peruvian	,,	8,980	..
Bones (whether burnt or not, or as Animal Charcoal)	tons	83,814	457,436
Brimstone	cwts.	1,166,729	380,583
Bristles	lbs.	2,378,526	359,102
Caoutchouc	cwts.	79,756	696,377
Clocks	number	251,355	452,474
Watches	,,	119,697	

		Imported.	Computed Real Value. £
Cotton, Raw:—From United States	cwts.	4,715,733	..
Bahamas and Bermuda	,,	10,623	..
Mexico	,,	22	..
Brazil	,,	628,761	..
Turkey	,,	57,024	..
Egypt	,,	1,127,541	..
British India	,,	4,449,259	..
China	,,	4,707	..
Other countries	,,	278,981	..
Total	,,	11,272,651	£51,999,537
Cotton Manufactures	value £	1,185,287	1,185,287
Cream of Tartar	cwts.	52,825	..
Dyes and Dyeing Stuffs:—Brazil Wood	tons	576	..
Cochineal	cwts.	41,325	809,914
Indigo	,,	71,995	2,422,534
Logwood	tons	28,530	..
Madder and Madder Root	cwts.	259,861	549,660
Garancine	,,	66,468	434,711
Shumac	tons	13,440	257,027
Terra Japonica	,,	13,237	..
Cutch	,,	2,111	348,494
Valonia	,,	19,547	331,264
Elephants' Teeth	cwts.	10,200	360,520
Flax (dressed and undressed), and Tow or Codilla of Flax	,,	1,440,669	4,180,083
Fruit:—Lemons and Oranges	bushels	1,453,566	744,732
Glass:—Window Glass	cwts.	285,794	791,882
Plate Glass	,,	56,358	
Flint, cut, coloured, or ornamented	,,	31,427	
Of other kinds	,,	72,178	
Goats' Hair or Wool	lbs.	2,648,360	342,106
Manufactures of Goats' Hair or Wool	value £.	119,619	119,619
Guano	tons	192,308	2,109,506
Gum Shellac	cwts.	31,633	..
Gutta Percha	,,	15,289	94,954
Hemp:—(dressed and undressed), and Tow or Codilla of Hemp	cwts.	878,374	1,537,026
China Grass	,,	584	..
Jute and other vegetable substances of the nature of Hemp	,,	1,597,192	1,414,321
Hides, Untanned:—Dry	,,	280,063	3,104,246
Wet	,,	615,822	
Tanned, Tawed, Curried, or Dressed (except Russia Hides)	lbs.	8,732,604	
Hops	cwts.	296,117	1,626,941
Leather Manufactures:—Boots, Shoes, and Goloshes of all kinds	pairs	382,031	..
Boot Fronts	,,	74,324	..
Gloves	,,	10,893,780	1,245,337
Metals:—Copper Ore	tons	73,957	866,077
Copper Regulus	,,	28,825	935,078
Copper, unwrought and part wrought	cwts.	593,260	..
Iron, in Bars, unwrought	tons	71,703	732,875
Steel, unwrought	,,	8,636	..
Lead, Pig and Sheet	,,	45,158	846,543
Spelter or Zinc	,,	33,818	765,147
Tin, in Blocks, Ingots, Bars, or Slabs	cwts.	108,595	481,344
Silver Ore	value £.	165,587	165,587
Oil:—Petroleum	tuns	22,496	367,722
Train, Blubber, and Spermaceti	,,	15,945	904,253
Palm	cwts.	812,080	1,568,194
Cocoa Nut	,,	124,314	308,745
Olive	tuns	19,993	1,244,296
Seed Oil of all kinds	,,	16,931	686,730
Oil of Turpentine	cwts.	154,464	236,061
Oil Seed Cakes	tons	121,832	982,706

		Imported.	Computed Real Value. £.
Paper for Printing or Writing	cwts.	174,429	447,701
Of other kinds, except Paper Hangings	,,	151,926	191,944
Potatoes	,,	1,374,223	397,144
Provisions:—Bacon and Hams	,,	537,114	1,391,779
Beef, Salt	,,	195,797	623,392
Pork, Salt	,,	142,831	351,871
Butter	,,	1,142,262	5,854,271
Cheese	,,	905,476	2,555,265
Eggs	number	397,934,520	989,837
Lard	cwts.	246,839	652,182
Pyrites	tons	272,698	..
Quicksilver	lbs.	2,191,143	..
Rags, &c., for making Paper:—Linen and Cotton	tons	18,407	633,965
Esparto	,,	54,512	
Vegetable Fibre, other than Esparto	,,	562	
Other Materials for making Paper	,,	794	
Rice, not in the Husk	cwts.	2,773,656	2,028,817
,, in the Husk	qrs.	44,943	85,283
Rosin	cwts.	696,117	371,770
Saltpetre	,,	214,604	198,857
Cubic Nitre	,,	1,217,752	667,356
Seeds:—Cotton	tons	93,643	..
Clover	cwts.	150,968	503,669
Flaxseed and Linseed	qrs.	1,095,360	3,259,565
Rape	,,	610,782	1,597,289
Silk:—Raw	lbs.	5,849,648	7,556,462
Waste, Knubs, and Husks	cwts.	23,031	..
Thrown	lbs.	196,188	439,967
Silk Manufactures of Europe:—Broad Stuffs	,,	2,053,159	5,443,114
Ribbons, Silk or Satin	,,	871,852	2,610,987
Gauze or Crape	,,	50	930,374
Velvet or Plush	,,	246,857	
Plush for making Hats	,,	53,926	
Silk Manufactures of India:—Bandannas, Corahs, Choppas, Tussore Cloths, Romals, and Taffaties	pieces	59,761	56,036
Spices:—Cinnamon	lbs.	859,034	76,692
Ginger	cwts.	42,834	..
Nutmegs	lbs.	370,143	23,417
Pepper	,,	13,913,924	205,370
Pimento	cwts.	47,179	..
Tallow	,,	1,105,458	2,419,594
Tar	lasts	12,948	..
Timber and Wood:—Deals, Battens, Boards, or other Timber or Wood Sawn or Split	loads	2,176,458	5,904,666
Staves, not exceeding 72 in. long	,,	62,516	606,437
Timber or Wood not Sawn or Split, or otherwise Dressed, except Hewn, and not otherwise charged with Duty	,,	1,210,558	3,423,236
Mahogany	tons	53,394	480,858
Turpentine, Common	cwts.	40,035	..
Wool, Sheep and Lambs':—From Hanse Towns and other Parts of Europe	lbs.	21,467,072	16,178,034
British Possessions in South Africa	,,	36,126,750	
British India	,,	15,234,620	
Australia	,,	133,108,176	
Other Countries	,,	24,368,489	
Total	,,	230,305,107	
Alpaca and the Llama Tribe	,,	3,478,717	
Woollen Rags, torn up to be used as Wool	,,	21,219,408	279,721
Woollen Manufactures:—Not made up	value £.	2,299,917	2,299,917
Shawls, Scarfs, and Handkerchiefs	lbs.	52,222	..
Woollen and Worsted Yarn	,,	5,818,865	..
Yeast, Dried	cwts.	116,262	242,316

ARTICLES SUBJECT TO DUTY.

		Imported.	Entered for Home Consumption.	Computed Real Value. £.
Cocoa	lbs.	11,954,862	4,585,517	346,869
Coffee	,,	137,729,716	31,567,760	4,362,760
Corn:—Wheat	cwts.	34,645,569	34,888,369	24,985,096
Barley	,,	5,683,721	5,741,669	2,832,515
Oats	,,	9,407,136	9,519,070	4,319,908
Peas	,,	1,586,129	1,595,794	721,604
Beans	,,	1,982,615	1,997,028	870,475
Indian Corn or Maize	,,	8,540,429	8,572,267	3,834,734
Wheat Meal and Flour	,,	3,592,969	3,615,049	3,519,577
Indian Corn Meal	,,	7,548	7,984	93,350
Fruit:—Currants	,,	1,002,366	758,715	905,578
Raisins	,,	392,322	312,802	563,709
Spirits:—Rum	proof galls.	6,845,502	4,314,137	692,366
Brandy	,,	4,849,831	3,186,595	1,376,360
Sugar, Refined, and Sugar Candy	cwts.	834,452	771,535	1,317,966
Sugar, Unrefined:—1st Class	,,	147,881	84,371	11,501,961
2nd Class	,,	3,902,694	3,690,738	
3rd Class	,,	3,747,509	4,051,081	
4th Class (including Cane Juice)	,,	2,747,231	3,441,896	
Molasses	,,	358,316	*403,722	250,470
Tea	lbs.	128,026,807	111,057,705	10,067,813
Tobacco:—Stemmed	,,	20,451,816	18,295,158	1,841,942
Unstemmed	,,	37,134,471	21,819,224	
Manufactured, and Snuff	,,	3,798,999	939,230	539,370
Wine:—Red	galls.	6,749,124	6,296,142	4,835,251
White	,,	8,693,457	7,458,201	

Other articles make up a total value of 275,249,853*l.*

* Including 83,034 cwts. of molasses, and 2,123 cwts. of sugar, delivered duty-free for use in distilleries.

18. EXPORTS of the PRINCIPAL ARTICLES OF FOREIGN AND COLONIAL MERCHANDIZE in the Year ended December 31, 1867.

Bacon and Hams	cwts.	18,369
Caoutchouc	,,	27,930
Cheese	,,	10,465
Cocoa	lbs.	4,418,016
Coffee:—		
Of British Possessions	,,	71,456,123
Foreign	,,	26,139,824
Corn:—Wheat	cwts.	225,599
Wheat-meal or Flour	,,	16,861
Cotton, Raw	,,	3,130,593
Cotton Manufactures	value £.	299,821
Dyes and Dyeing Stuffs:—		
Cochineal	cwts.	23,726
Indigo	,,	62,692
Shumach	tons	1,679
Gambier (Terra Japonica)	,,	4,655
Cutch	,,	1,455
Fruit:—Currants	cwts.	95,486
Raisins	,,	59,665
Goats' Hair, Manufactures of	value £	28,385
Guano	tons	5,136
Gum Shellac	cwts.	26,660
Hemp (dressed and undressed), and Tow or Codilla of Hemp	,,	71,639
Jute	,,	366,793
Other vegetable substances of the nature of Hemp	,,	6,367
Hides, Untanned—Dry	,,	183,287
Hides, Wet	cwts.	71,385
Hops	,,	9,241
Leather Manufactures:—		
Gloves	pairs	39,672
Metals:—Copper	cwts.	283,192
Tin, in Blocks, Ingots, Bars, or Slabs	,,	26,576
Oil:—Petroleum	tuns	3,108
Palm	cwts.	272,899
Cocoa Nut	,,	152,082
Olive	tuns	1,319
Paper, White, for Printing or Writing	cwts.	18,681
Other kinds, except Hangings	,,	16,396
Quicksilver	lbs.	2,422,140
Rags and other Materials for making Paper	tons	3,487
Rice, not in the Husk	cwts.	1,196,295
Saltpetre	,,	32,900
Seed:—Flax & Linseed	qrs.	19,904
Rape	,,	222,842
Silk:—Raw	lbs.	1,902,014
Waste, Knubs, and Husks	cwts.	4,625
Thrown	lbs.	16,126
Silk Manufactures of Europe:—		
Broad Stuffs: Silk or Satin	,,	7,334
Broad Stuffs: Gauze, Crape, and Velvet	,,	7,709
Ribbons of all kinds	,,	2,366

Silk Manufactures of India:—		
Bandannas, Corahs, Choppas, Tussore Cloths, Romals, and Taffaties	pieces	23,658
Spices:—Cinnamon	lbs.	832,552
Pepper	,,	16,329,910
Spirits:—Rum	prf.galls.	2,464,103
Brandy	,,	365,316
Mixed in Bond	,,	566,720
Sugar:—Unrefined	cwts.	173,793
Refined, and Candy	,,	10,663
Molasses	cwts.	33,172
Tallow	,,	63,931
Tea	lbs.	31,131,112
Teeth, Elephants'	cwts.	5,687
Tobacco:—Stemmed	lbs.	814,634
Unstemmed	,,	16,162,231
Manufactured, and Snuff	,,	2,275,308
Wine:—Red	galls.	659,554
White	,,	1,156,635
Mixed in Bond	,,	48,537
Wool:—Sheep and Lambs', Produce of British Possessions	lbs.	80,984,436
Foreign	,,	9,846,020
Alpaca and the Llama Tribe	,,	2,128

19. EXPORTS of the PRINCIPAL and OTHER ARTICLES of BRITISH and IRISH PRODUCE and MANUFACTURES in the Year ended December 31, 1867.

		Quantities.	Declared Value. £.
Alkali:—Soda	cwts.	3,163,278	1,614,608
Apparel and Slops	value	..	2,207,633
Arms, Ammunition, &c.:—Fire-arms (small)	number	332,623	495,005
Gunpowder	lbs.	20,103,720	518,205
Of all other kinds (except Lead Shot)	value	..	554,325
Bacon and Hams	cwts.	42,627	174,638
Bags, empty	dozens	1,718,381	762,702
Beef and Pork	cwts.	9,576	24,196
Beer and Ale	barrels	519,286	1,909,544
Books, Printed	cwts.	49,906	613,235
Butter	,,	55,362	266,414
Candles, Stearine and Composition	lbs.	4,831,427	182,792
Carriages, Railway	number	1,414	189,276
Of other sorts	,,	601	49,735
Cheese	cwts.	29,653	127,874
Coals, Cinders, and Culm	tons	10,424,886	5,400,353
Cordage and Twine	cwts.	112,936	317,691
Cotton Yarn	lbs.	169,356,528	14,870,562
Cotton Manufactures:—Piece Goods of all kinds, Plain, Printed, or Coloured	yds.	2,830,417,875	53,132,831
Lace and Patent Net	value	..	471,326
Hosiery:—Stockings	doz. pairs	1,090,746	388,134
Of other kinds	value	..	407,951
Counterpanes and Small Wares	,,	..	458,030
Thread for Sewing	lbs.	6,506,851	1,114,858
Total value of Cotton Manufactures			55,973,130
Drugs and Chemical Products:—Medicines	value	..	499,619
Unenumerated, used in Dyeing and other processes subservient to Manufactures and the Arts	,,	..	568,528
Earthenware and Porcelain	packages	257,530	1,634,975
Fish:—Herrings	barrels	522,065	721,829
Other sorts	value	..	225,371
Furniture, Cabinet and Upholstery Wares	,,	..	200,425
Glass:—Flint	cwts.	100,007	269,333
Window	,,	65,063	82,138
Common Bottles	,,	703,132	351,340
Plate	sq. feet	945,754	97,512
Haberdashery and Millinery	value	..	4,438,119
Hardwares:—Cutlery, &c.	,,	..	482,723
Manufactures of Steel, or of Steel and Iron combined	,,	..	494,323
Manufactures of German Silver, of Pewter, and Britannia Metal, of Papier Maché, Lamps, Chandeliers and Candelabra, and Hardware not specifically described	,,	..	2,956,688
Hats of all kinds	dozens	273,788	510,890

		Quantities.	Declared Value. £.
Horses	number	4,133	177,638
Jute:—Manufactures, not made up	yds.	26,739,196	453,586
Manufactures, made up	value	.	202
Yarn	lbs.	7,515,081	116,884
Leather, Tanned, Tawed, or Dressed, Unwrought	cwts.	43,584	428,268
Wrought, Boots and Shoes	pairs	3,284,883	950,794
Wrought, of other Sorts	lbs.	1,176,146	258,541
Saddlery and Harness	value	. .	220,475
Linen Yarn	lbs.	34,103,859	2,453,684
Linen Manufactures:—Piece Goods of all kinds	yds.	211,972,840	7,060,413
Thread	lbs.	2,753,794	343,282
Hosiery and other Goods entered at value	value	. .	69,411
Machinery:—Steam Engines	,,	. .	1,994,984
Other sorts	,,	. .	2,968,928
Metals:—Iron: Pig and Puddled	tons	567,319	1,660,026
,, Bar, Angle, Bolt, and Rod	,,	301,150	2,359,062
,, Railroad, of all sorts	,,	582,420	4,889,389
,, Wire (except Telegraphic Wire)	,,	18,697	361,193
,, Castings	,,	80,755	677,433
,, Hoops, Sheets, and Boiler Plates	,,	145,103	1,785,447
,, Wrought, of all sorts	,,	110,431	2,141,496
,, Old, for re-manufacture	,,	47,533	188,912
,, Steel, Unwrought	,,	32,526	1,063,954
Copper: Unwrought, in Ingots, Cakes, or Slabs	cwts.	192,859	781,950
,, Wrought or partly Wrought, Sheets and Nails, Bars, Rods, Plates, Bottoms, Pans, and Mixed or Yellow Metal for Sheathing	,,	556,190	2,220,473
,, Wrought, of other sorts	,,	10,095	53,919
Brass of all sorts	,,	46,250	216,633
Lead: Pig, Rolled, Sheet, Piping, Tubing, and Lead Shot	tons	29,255	623,170
Ore, Lead, Red and White, and Litharge of Lead	,,	9,695	248,303
Tin, Unwrought	cwts.	83,827	383,241
Tin Plates	,,	1,579,692	2,063,260
Zinc or Spelter, Wrought or Unwrought	,,	143,486	158,283
Oil, Seed	gallons	7,098,291	1,079,717
Painters' Colours	value	. .	562,969
Paper for Writing and Printing	cwts.	131,638	438,919
Of other kinds (except Hangings)	,,	58,844	130,635
Pickles and Sauces	value	. .	339,938
Plate, Plated Ware, Jewellery, and Watches	,,	. .	416,661
Rags and other Materials for making Paper, viz.: Rags, Linen, Cotton, &c.	tons	7,345	140,604
Vegetable Fibre, old Ropes, and other Materials for making Paper	,,	5,443	78,927
Salt	,,	724,766	451,177
Silk, Thrown	lbs.	406,386	574,667
Silk Twist and Yarn	,,	260,592	179,124
Silk Manufactures:—Broad Piece Goods, Fancy Silks and Satins, Velvet and Grey Cloths of Silk only	yards	1,425,660	312,905
Handkerchiefs, Scarfs, and Shawls, of Silk only	dozens	77,313	130,513
Ribbons of Silk only	lbs.	43,628	50,920
Other Articles of Silk only	value	. .	190,630
Silk Manufactures mixed with other Materials	,,	. .	343,734
Soap	cwts.	219,025	288,722
Spirits, British	gallons	1,289,874	163,542
Stationery, other than Paper	value	. .	378,221
Sugar, Refined	cwts.	172,456	265,931
Telegraphic Wire and Apparatus	value	. .	209,688
Wool, Sheep and Lambs'	lbs.	8,862,750	776,019
Woollen and Worsted Yarn	,,	37,436,487	5,822,227
Woollen and Worsted Manufactures:—Cloths of all kinds, Duffels, and Kerseymeres, of Wool only, or mixed with other materials	yards	31,435,959	5,338,407

		Quantities.	Declared Value £.
Woollen and Worsted Manufactures:—Flannels	yards.	6,757,179	416,648
Blankets	,,	3,355,078	354,908
Blanketing and Baizes	,,	1,013,240	89,641
Carpets and Druggets	,,	6,673,601	1,102,036
Shawls, Rugs, Coverlets or Wrappers, and Carpet Rugs	number	733,481	292,743
Total of Worsted Stuffs, of Wool only, or mixed with other materials	yards	200,278,056	12,149,260
Hosiery, Stockings	doz. pairs	118,156	61,581
Other than Stockings	value	..	208,028
Small Wares	,,	..	120,828

Total Declared Value	Enumerated Articles	172,619,435
	Unenumerated Articles	8,564,536
	All Articles	£181,183,971

20. Declared Value of British and Irish Produce and Manufactures Exported from the United Kingdom to each Foreign Country and British Possession in the Year ended December 31, 1867.

Foreign.	£
Russia	3,941,185
Sweden	647,222
Norway	850,328
Denmark, Iceland, &c.	1,284,755
Prussia	2,886,702
Schleswig, Holstein, and Lauenburg	119,787
Hanover	194,457
Mecklenburg Schwerin	85,602
Oldenburg and Kniphausen	36,710
Hanse Towns	17,246,847
Holland	9,396,567
Belgium	2,819,753
France	12,131,581
Portugal Proper	1,823,599
—— Azores	108,149
—— Madeira	73,978
Spain	2,298,771
—— Canary Islands	264,448
Italy	4,865,931
Papal Ports on the Mediterranean	15,313
Austrian Territories: Illyria, Croatia, and Dalmatia	965,809
Greece (inclusive of the Ionian Islands)	956,499
Turkey, European	4,771,126
—— Natolia or Asia Minor	715,061
—— Wallachia & Moldavia	423,339
—— Syria and Palestine	1,143,424
—— El Hedjaz, and Ports on the Euphrates or Persian Gulf	53,001
Egypt	8,189,647
Tunis	67,323
Algeria	22,750
Morocco	183,846
Western Africa (Foreign)	814,193
Cape Verde Islands	32,049
Eastern Africa	36,162
Madagascar	3,319
Arabia, Native Territories	4,963
Persia	14,066
French Possessions in India	2,074
Dutch Possessions in India, Java, &c.	1,345,413
Philippine Islands	1,041,596
Siam	4,244
Cochin China, Camboja, and Tonquin	612
China (exclusive of Hong Kong)	5,005,190
Japan	1,546,136
Islands in the Pacific	19,888
Cuba and Porto Rico	2,253,732
Other Foreign West Indies, including Hayti & St. Domingo	1,064,336
United States	21,821,786
Mexico	806,162
Central America	243,767
New Granada	2,404,695
Venezuela	260,074
Ecuador	44,771
Peru	1,426,448
Bolivia	3,852
Chili	2,536,801
Brazil	5,700,584
Uruguay	1,445,210
Argentine Confederation	2,838,037
Whale Fisheries, Northern	100
Total	£131,303,770

British Possessions.	£
Heligoland	70
Channel Islands	471,284
Gibraltar	729,231
Malta and Gozo	498,909
Western Africa (British)	631,188
Ascension	5,707
St. Helena	36,991
Cape of Good Hope (including Kaffraria)	1,701,611
Natal	191,981
Mauritius	376,871
Aden	79,060
India	21,844,619
Singapore and the Eastern Straits	2,068,640
Ceylon	774,754
Hong Kong	2,486,017

	£
Australia, West	78,831
——— South	909,353
Victoria	4,561,803
New South Wales	2,057,431
Queensland	296,393
Tasmania	217,947
New Zealand	1,515,399
British North America	5,853,523
Bermudas	43,363
British West India Islands	1,665,054
British Guiana	628,483
British Honduras	148,076
Falkland Islands	7,612
Total	49,880,201
Total to Foreign Countries and British Possessions	£181,183,971

21. COLONIAL TRADE.—The number and tonnage of vessels that entered and cleared from the various ports in the United Kingdom in the year 1867, from and to the British colonies, were—*Inwards*, in England, British, 4,123 sailing vessels, tonnage 1,888,587; steam vessels 578, tonnage 254,649; foreign, sailing vessels 539, tonnage 237,959; steam vessels none. In Scotland, British, sailing vessels 402, tonnage 220,971; and 22 steam vessels, tonnage 16,858, all from Glasgow or Greenock; foreign, 23 sailing vessels, tonnage 8,395; and no steam vessels. In Ireland, British, sailing vessels 257, tonnage 120,545; foreign, 37 sailing vessels, tonnage 15,014. In the Isle of Man and Channel Islands, sailing vessels 20, tonnage 2,912; and no foreign. *Outwards*, from England, British, sailing vessels 4,063, tonnage 2,080,676; steam vessels 664, tonnage 283,697; foreign, sailing vessels 539, tonnage 287,959; steam vessels none. From Scotland, British, sailing vessels 528, tonnage 319,878; steam vessels 53, tonnage 29,586; foreign, sailing vessels 26, tonnage 11,078; and 1 steam vessel, tonnage 496. From Ireland, British, sailing vessels 133, tonnage 69,029; foreign, sailing vessels 22, tonnage 9,017. From the Channel Islands, 43 sailing vessels, tonnage 5,258. The total number of British ships entered inwards was 5,407, tonnage 2,494,522—a decrease of 331 vessels, and 213,367 tons from the return of 1866; of foreign, there were 409 vessels, tonnage 263,375—a decrease of 54 vessels, and 27,536 tons. Of British ships cleared outward, there were 5,536, tonnage 2,709,117—an increase of 81 vessels, and 33,763 tons; of foreign vessels there were 508 vessels, all sailing vessels, except 1, tonnage 308,545—an increase of 82 vessels, and 54,386 tons, from the previous year.

22. COASTING TRADE.—The number and tonnage of vessels that entered and cleared coastwise, during the year 1867, was, to various ports in England, including their repeated voyages—*Inwards*, British sailing vessels 74,971, tonnage 5,870,150; steam vessels 19,563, tonnage 5,524,830; foreign sailing vessels 503, tonnage 91,486; steam vessels 5, tonnage 2,547. In Scotland, British, 11,832 sailing vessels, tonnage 884,195; steam vessels 6,895, tonnage 1,742,274; foreign, sailing vessels 28, tonnage 2,449; steam vessel 1, tonnage 280. In Ireland, sailing vessels 20,275, tonnage 1,784,906; steam vessels 7,956, tonnage 2,542,643; foreign, 3 sailing vessels, tonnage 221; steam vessels none. Isle of Man (there were none from the Channel Islands), sailing vessels 1,245, tonnage 45,197; steam vessels 304, tonnage 69,925. There were no foreign steam vessels, inward, to Ireland, the Isle of Man, or the Channel Islands. *Outwards*, from various ports in England, British, sailing vessels 89,238, tonnage 7,190,628; steam vessels 19,257, tonnage 5,343,343; foreign, sailing vessels 452, tonnage 77,655; steam vessels 9, tonnage 5,187. From Scotland, 14,184, sailing vessels, tonnage 1,024,654; steam vessels 7,137, tonnage 1,754,621; foreign, 57 sailing vessels, tonnage 6,331; steam vessels 2, tonnage 737. From Ireland, 5,721, sailing vessels, tonnage 404,034, steam vessels 7,730, tonnage 2,589,914; foreign, sailing vessels 62, tonnage 9,750; steam vessel 1, tonnage 440. From the Isle of Man, 526 sailing vessels, tonnage 20,867, steam vessels 304, tonnage 69,925. Total—*Inwards*, British, 135,085 vessels, tonnage 15,921,477; foreign, 549 vessels, tonnage 927,871. *Outwards*, British, 144,040 vessels, tonnage 19,384,657; foreign, 563 vessels, tonnage 100,100. A decrease inward of 8,940 British vessels, and an increase of 447,660 in the tonnage; a decrease of 71 foreign vessels, and of 188,869 in the tonnage; in the outward trade there was also a decrease of 2,286 British ships, with an increase of 847,660 in the tonnage; foreign vessels show a decrease of 105 ships, and of 36,640 in the tonnage.

23. VESSELS BUILT, &c. — In 1867, of vessels built in the United Kingdom there were 743 timber sailing vessels, tonnage 97,153; 135 iron sailing vessels, tonnage 77,321; 51 timber steam vessels, tonnage 3,249; and 228 iron steam vessels, tonnage 91,324. In the colonies—chiefly in the North American colonies—there were built 778 timber sailing vessels, tonnage 141,407; iron sailing vessels 3, tonnage 252; timber steam vessels 18, tonnage 1,758; and 7 iron steamers, tonnage 715. A total of 1,963 vessels, tonnage 413,179; a decrease of 292 vessels, and 99,054 of tonnage from 1866.

24. RETURN of the SHIPPING employed in the Trade of the United Kingdom, exhibiting the NUMBER and TONNAGE of VESSELS that Entered Inwards and Cleared Outwards (including their repeated Voyages), and distinguishing the Trade with each Country, in the Year 1867. [Sa. is for Sailing Vessels; St. for Steam Vessels.]

COUNTRIES.		INWARDS.				OUTWARDS.			
		British.		Foreign.		British.		Foreign.	
		Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
Russia	St.	361	239,454	15	16,227	345	221,863	23	25,294
	Sa.	1,809	441,355	2,236	594,641	1,150	265,600	1,539	312,805
Sweden	St.	182	101,306	36	17,274	137	80,016	30	14,120
	Sa.	398	79,884	2,656	541,445	253	51,442	1,476	304,841
Norway	St.	150	68,163	3	506	149	68,432	24	7,630
	Sa.	391	37,680	2,764	513,049	217	30,425	2,620	500,820
Denmark	St.	84	32,187	60	21,285	148	61,653	60	22,272
	Sa.	35	5,586	1,313	115,425	428	76,459	3,524	500,757
Prussia	St.	291	137,696	53	18,645	295	140,582	57	20,441
	Sa.	622	78,763	1,332	272,042	708	92,938	1,526	314,378
Germany	St.	1,422	668,646	429	327,895	1,231	556,483	343	175,587
	Sa	1,175	237,404	2,184	299,877	1,088	198,799	2,390	277,399
Holland	St.	1,564	569,492	142	39,905	1,402	491,155	114	33,710
	Sa.	1,282	246,655	1,489	242,330	1,083	163,176	435	37,624
Belgium	St.	1,165	426,907	701	110,876	1,044	357,731	597	94,955
	Sa.	950	188,756	772	158,635	690	85,361	52	8,448
Channel Isles	St.	424	84,838	.	.	431	85,577	.	.
	Sa.	1,396	167,594	19	1,581	862	69,374	12	785
France	St.	5,996	1,501,336	419	106,242	5,685	1,434,695	349	91,834
	Sa.	5,049	643,362	5,139	568,794	4,797	601,184	4,414	352,717
Portugal	St.	176	75,901	25	13,576	189	77,096	32	16,650
	Sa.	745	112,827	133	19,185	571	88,336	399	57,711
Spain	St.	146	57,119	161	73,642	151	60,916	145	66,868
	Sa.	834	188,572	346	66,569	1,110	253,339	675	135,377
Gibraltar	St.	38	24,641	.	.	109	60,995	.	.
	Sa.	13	6,020	1	297	230	42,956	18	4,125
Italian States	St.	200	141,317	6	4,431	174	138,774	10	6,057
	Sa.	319	57,557	181	43,486	568	143,365	900	290,963
Malta	St.	5	4,449	.	.	32	24,216	.	.
	Sa.	7	3,749	.	.	154	52,426	92	32,343
Ionian Isles.	St.	7	3,513	.	.	9	5,048	.	.
	Sa.	19	2,638	2	413	35	6,884	29	9,719
Greece	St.	49	27,078	1	804	20	10,943	.	.
	Sa.	67	20,637	5	1,190	71	28,979	45	14,128
Turkey	St.	67	70,978	2	1,996	99	90,239	4	2,898
	Sa.	214	68,250	140	44,305	251	70,264	332	107,448
Wallachia & Moldavia	St.	11	6,423	.	.	15	8,888	.	.
	Sa.	54	11,614	27	5,827	23	4,192	18	3,379
Syria	St.	.	.	.	.	1	1,634	.	.
	Sa.	2	477	1	117	27	7,847	9	2,411
Africa	St.	281	292,807	1	1,100	292	294,388	1	219
	Sa.	571	184,874	142	45,429	1,060	360,418	491	152,680
Asia	St.	15	21,568	.	.	37	27,530	1	496
	Sa.	1,141	997,000	57	29,489	1,800	1,558,177	372	246,946
America:—									
British N. Colonies.	St.	71	78,335	.	.	70	72,753	.	.
	Sa.	1,480	851,844	265	142,298	1,010	583,422	78	33,282
British W. Indies	St.	31	37,754	.	.	19	19,354	.	.
	Sa.	718	236,348	71	24,027	561	184,999	54	18,505
Foreign W. Indies	St.	22	37,315	1	166	34	51,655	1	2,000
	Sa.	282	102,254	297	92,525	455	174,474	513	167,323
United States	St.	391	614,374	8	9,060	356	580,603	88	157,839
	Sa.	600	388,418	543	448,221	627	449,710	505	449,130
Central and SthrnStates	St.	83	75,194	.	.	100	78,723	9	2,050
	Sa.	991	428,894	333	106,125	1,063	414,849	520	167,898
Falkland Isles	Sa.	3	1,079	.	.	4	1,153	.	.
The Whale Fisheries	St.	18	6,312	.	.	14	4,858	.	.
	Sa.	10	2,671	.	.	18	4,857	1	228
Total		34,427	11,197,865	24,511	5,140,952	33,502	11,172,205	24,847	5,245,090

25. British Shipping.—On December 31, 1867, the number of sailing vessels registered in the various ports of England and Wales was 7,522 under 50 tons, the tonnage of which was 239,596; and 12,516 above 50 tons, the tonnage 3,675,956. In Scotland, the number was 1,007 under 50 tons, the tonnage 30,604; and 1,935 above 50 tons, the tonnage 637,824. In Ireland the vessels under 50 tons numbered 971, the tonnage 28,185; and those above 50 tons 1,046, the tonnage 158,824. In the Isle of Man and the Channel Islands, there were 462 vessels under 50 tons, tonnage 12,237; and 383 above 50 tons, tonnage 69,685. Total of sailing vessels, 25,842; total amount of tonnage, 4,852,911—a decrease of 298 vessels and of 50,741 tons from the preceding year. The steam vessels were—in England, 858 under 50 tons, tonnage 19,987; and 1,360 above 50 tons, tonnage 668,522. In Scotland, 138 under 50 tons, tonnage 3,740; above 50 tons 363, tonnage 148,489. In Ireland, 52 under 50 tons, tonnage 1,390; above 50 tons 150, tonnage 57,233. In the Isle of Man and Channel Islands, the number of steam vessels was 10, of which only 3, of 38 tons, were under 50 tons, the tonnage of the other 7 was 1,663. Total of steam vessels, 2,931; tonnage, 901,062; an increase of 100 vessels, and of 26,377 tons. The number of vessels registered in the year in British colonies and possessions was,—in Europe, at Malta and Gibraltar, 225 sailing vessels, tonnage 41,426 and 8 steam vessels of 563 tons; in Africa, 256 sailing vessels, tonnage 30,960, steam vessels 5, tonnage 437; in Asia, 965 sailing vessels, tonnage. 218,266, and steam vessels 75, tonnage 15,492; in Australasia, 1,647 sailing vessels, tonnage 172,716, steam vessels 191, tonnage 23,268 (of these, 334 sailing vessels and 42 steam vessels, with a total tonnage of 23,978, belong to New Zealand). In the North American colonies, 6,941 sailing vessels, tonnage 854,437, steam vessels 196, tonnage 26,608; of these, 3,359 vessels, with a tonnage of 381,166 were furnished by Nova Scotia. In the British West Indies, there were 1,224 sailing vessels, tonnage 83,320; steam vessels 19, tonnage 5,432; of which 585 sailing vessels, tonnage 42,878, and 11 steam vessels, tonnage 3,658, belonged to the Bahamas. The total of colonial registered vessels was 11,752, tonnage 1,472,925—a decrease of 218 vessels, and of 34,652 in tonnage from 1866. The total number of British and colonial vessels, sailing and steam, was 40,525, and the total tonnage 7,227,798, a trifling decrease on the whole. In addition there were 73 foreign-built vessels, tonnage 22,943, registered at various ports of the United Kingdom.

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26. British Fisheries.—The Fishery Commissioners report that in 1867 there were 14,208 boats, manned by 46,219 fishermen and boys, employed in the herring and the cod and ling fisheries, an increase over the preceding year of 393 boats and 749 fishermen and boys. The estimated value of the boats, nets, and lines increased also by 30,723*l.*, and reached 1,020,188*l.* The herring fishery was the most prolific since 1862, 825,589 barrels of herrings were cured, an increase of 167,422 barrels; 317,421 barrels were branded, an increase of 67,911 barrels; and 478,704 barrels were exported, an increase of 98,638 barrels. The returns of the cod and ling fishery also show a small increase; 119,638 cwt. were cured dried, and 10,819 barrels were cured in pickle; the export was 46,225 cwt. The Commissioners report in favour of the removal of all restrictions upon modes of fishing, and notice that steam is about to be applied to the fishing in two shapes, one using steam-tugs to tow the fishing-boats to their stations, the other to have the fishing-boats fitted with an engine and screw.

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27. Fisheries, Ireland.—The report of the Commissioners of the Deep Sea and Coast Fishery, Ireland, states that in 1867 there were 9,332 vessels registered, with 35,865 men and 2,579 boys—a net decrease of 40 vessels, 1,533 men, and 587 boys, since 1866. The report states that a progressive improvement is taking place in the size and fitting of boats, but that the mackerel fishing and the herring fishery had been unsuccessful in consequence of stormy weather. The oyster-beds were improving, and several fresh licences had been taken out. 6571 tons 14 cwts. of fish had been conveyed by the railways during the year, a decrease of 2400 tons from 1866.

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28. Wrecks.—From the Shipping Returns of the Board of Trade, we learn that there were 2,513 British ships of 464,000 tons burthen wrecked in 1867; with loss of life in them numbering 1,333. From the Annual Report of the Royal National Lifeboat Institution, we gather that 2,113 of the wrecks were of British or Colonial vessels; 1,551 coasters, and 562 oversea traders. Of the casualties 1,101 occurred on the east coast, always the most dangerous; 259 on the south coast, 411 on the west coast; 46 on the north-west coast of Scotland; 214 on the Irish coast; off the Isle of Man, 22; Lundy Island, 18, and Scilly Islands, 19. In affording assistance in these casualties the Lifeboat Institution has been very effective. In the year, 1,086 persons were rescued by their boats, or by shore-boats, &c., for which the Institution grant rewards to those who have effected the rescue; this is independent of lives saved by the rocket apparatus, which is worked by the coastguard. The Institution has now under its charge 189 boats at various parts of the coast. By September 30, 1868, the number of lives saved had been increased to 1,664 of whom 1,128 were saved by life-boats and 536 by shore-boats, &c., and 53 vessels had been saved by their means. Rewards to the amount of 4,763*l.* had been given for these exertions, besides 20 gold and silver medals. The total income for the year had been 39,305*l.*, and there had been expended on lifeboats, 15,141*l.*; on lifeboat houses, 3,830*l.*; on lifeboat carriages, 2,285*l.*; for rewards,

salaries to coxswains and crews, 9,328*l.* The total expenditure had been 34,875*l.*; and 4,430*l.* remained in hand. The expense of a life-boat, its equipment, transporting carriage, and boat-house, averages 640*l.*, and 50*l.* is required annually to keep it and the crew in a state of efficiency. The analysis of wrecks issued by the Statistical Committee of Lloyd's takes a wider range, and gives a statement of 11,524 casualties in all parts of the world, with a loss of 1,430 lives as far as reported. Of the casualties, 10,377 happened to sailing vessels, and 1,047 to steamers. Of the whole number, 2,052 had come in collision, when 185 were sunk, 3,442 were stranded, and 138 suffered from fire. In 2,543 cases the vessels were wholly lost, and in 2828 the cargo was entirely lost.

29. COTTON.—The total amount imported in 1867 was 1,262,536,912 lbs. against 1,377,129,936 lbs. in 1867, a decrease of 114,593,024 lbs. Of the total, 523,162,096 lbs. came from the United States, almost the same as in the previous year; from the Bahamas 1,189,776 lbs., and only 2,464 lbs. from Mexico, instead of the 36,664,880 lbs. of 1865; 3,621,296 lbs. from the British West Indies; 9,713,872 lbs. from Venezuela and New Granada; 70,421,232 lbs. from Brazil; 6,687,298 lbs. from the Mediterranean; 126,284,592 lbs. from Egypt; from British Possessions in the East Indies, 498,317,098 lbs.; from China, 5,527,184 lbs. From other countries came 17,610,096 lbs. The whole shows that the United States has no longer a monopoly of the supply; that the variations of produce from various circumstances are very large. Egypt, Brazil, and South America, alone furnish nearly half as much as the United States, and the British East Indies closely approach them.

30. WOOL.—The total quantity imported in 1867 was 233,703,184 lbs., a decrease of about 2,000,000 lbs. from that of 1866. Of the total, 133,168,176 lbs. came from British Settlements in Australia; 15,234,620 lbs. from British Possessions in the East Indies; 36,126,750 lbs. from British Possessions in South Africa. Spain supplied only 494,049 lbs.; Germany, 3,819,288 lbs.; other countries in Europe, 17,172,526 lbs.; South America, 21,381,281 lbs.; and other countries, 6,306,494 lbs. A total of 184,529,546 lbs. from British Possessions, against 49,173,638 lbs. from all other parts, not much above a quarter, although alpaca wool, which is all foreign, is included in the return.

31. LINEN MANUFACTURES.—The exports from the United Kingdom in 1867 only amounted to 7,473,106*l.*, while it had been 9,576,245*l.* in 1866, and 9,156,990*l.* in 1865.

32. COPPER, TIN, ZINC, AND LEAD.—In 1867 there were imported into the United Kingdom 73,957 tons of copper ore; 28,825 tons of regulus; and 38,939 tons of part wrought or old for remanufacture or manufactured. There were re-exported 15,959 tons of the foreign copper. Of British copper there were exported 37,696 tons of various kinds, and 640 tons of ore.

Of TIN there were imported 5,430 tons, and of tin-ore and regulus 309 tons, and there were exported 1,329 tons of the foreign, and 4,226 tons of British.

Of ZINC there were imported 38,818 tons, of zinc-ore 12,194 tons. There were exported 6,782 tons of foreign, and 7,337 tons of British.

Of LEAD there were imported 45,148 tons of pig and sheet, 9,416 of lead ore, 77 tons of red lead, and 1,058 tons of white lead. There were exported 174 tons of ore, 38,603 tons of pig, rolled and sheet, and other forms of British lead, and 800 tons of foreign lead and lead ore.

33. MALT, BREWERS, AND BEER.—In the year 1867 there were 47,891,816 bushels of malt charged with duty in the United Kingdom, the duty amounting to 6,494,217*l.* Of the total 47,682,937 were used for home consumption. The large brewers (2,495) consumed 36,722,587 bushels of malt; 20,857 victuallers brewing their own beer, consumed 7,441,490 bushels; and 10,213 persons licensed to sell beer to be drunk on or off the premises, consumed 3,518,940 bushels.

The beer exported from the United Kingdom from Oct. 1, 1866, to Oct. 1, 1867, was 525,619 barrels, of the declared value of 1,960,053*l.* Of these England furnished 458,174 barrels, Scotland 66,909 and Ireland 536. More than a fourth, 112,839 barrels, went to Australia and New Zealand; nearly two-sevenths, 179,037 barrels, to India; 27,377 barrels to the British West Indies; 47,182 to British Possessions in South Africa; 14,770 to Hongkong and other Chinese ports; and so on to other settlements beyond the seas and many a foreign port. Two breweries paid licence duty for more than 600,000 barrels, another for more than 500,000, a third for more than 450,000, a fourth for more than 400,000. These five brewers together paid more than 36,000*l.* licence duty. The total number of brewers in the United Kingdom was 2,495; the number of licensed victuallers, 96,421; of persons licensed to sell beer to be drunk on the premises (in England only), 46,510; and of persons licensed to sell beer not to be drunk on the premises, 3,215.

34. BRITISH SPIRITS.—In the year 1867 there were 23,326,613 gallons of proof spirits distilled in the United Kingdom; a further decrease of 2,241,349 gallons. In England the quantity distilled was 7,016,013 gallons; in Ireland, 5,493,604 gallons; and in Scotland 10,813,996 gallons, a decrease of 1,185,123 gallons—England and Ireland having also both decreased. There were 22,765,181 gallons taken for consumption, paying 10s. per gallon duty, of which England consumed 11,323,713 gallons; Scotland, 4,983,009 gallons; and Ireland, 4,892,654 gallons. Scotland and Ireland were both in excess of the previous year, and the total decrease of consumption was 1,017,016 gallons; and 717,914 gallons

were exported, or used for ships' stores, duty free. At the end of the year there were 11,480,987 gallons in bonded stores in the United Kingdom.

Of METHYLIC ALCOHOL, 630,420 gallons were sent out by licensed persons, and 32,187 gallons were sold by the Excise.

35. COALS.—The coals, cinders, and culm shipped and sent coastwise in 1867 was 11,299,390 tons, an increase of 578,566 tons from the previous year. 3,016,416 tons of coal were brought coastwise into the port of London, and 3,313,134 tons by inland navigation and railway, making in all 6,329,550 tons, an increase of 326,488 tons over the previous year, the increase being wholly on the inland transmission, there having been a deficiency of 16,777 tons on the coastwise transmission. 10,415,778 tons of coal, cinders, and culm, of the declared value of 5,392,452*l.* were exported in 1867 from the United Kingdom to foreign countries and the colonies: this is an increase in quantity of 462,066 tons over the preceding year, and of 289,647*l.* in value. The largest exportation was to France, which received 1,795,650 tons.

The Inspectors of Coal Mines estimate that in the year 1867 there was raised in Great Britain a total of 105,077,443 tons, an increase of 4,000,000 tons over the quantity raised in 1866. The increase has been very general throughout the kingdom; the estimate for South Wales forms the chief exception, being above a quarter of a million tons below 1866. About a tenth of the quantity raised was exported.

IV.—CRIME, POLICE, AND LAW.

36. CRIMINAL OFFENCES, SCOTLAND.—The returns of criminal offenders in Scotland for 1867 show that the total number of persons committed for trial, or bailed, for the year, was 3,305, of whom 2,497 were males and 808 females, an increase from 1866 of 295 males and 7 females. Of the total 714 could neither read nor write, 1,994 could only read and write imperfectly, 475 could read and write well, and 94 had received a superior education, leaving 28 unaccounted for. As to the offences, they are thus classed in the tables:—Offences against the person, 864; against property committed with violence, 445; against property without violence, 1,633; malicious offences against property, 49; forgery and offences against currency, 83; other offences not included in the foregoing classes, 231. Of the 3,305 offenders, 494 were discharged without trial; 2,811 were tried, and of these 2,510 were convicted, 18 were outlawed, 6 was found insane on arraignment and detained, 53 were found not guilty, and 224 not proven. Of those convicted 1 was found guilty of murder, but the sentence was commuted to penal servitude for life; 199 were sentenced to various periods of penal servitude varying from life to 4 years; 2,069 to imprisonment for from 3 years to less than one month; 66 sent to reformatory schools, and 170 to be whipped, fined, or discharged on sureties.

37. POLICE, SCOTLAND.—In April, 1868, the police of Scotland consisted of 1,021 for the counties, giving 1 for every 1,801 of the inhabitants; and 1,861 for the burghs, an increase in the year of 60, giving 1 to 630 of the inhabitants. All the counties, except Cromarty, in which there is no policeman whatever either for town or county, were reported efficiently provided; and all the burghs with a population over 5,000, except Inverness; but 9 of the smaller burghs, with a population below 5,000, are still reported as inefficient. The number of vagrancy cases reported was 61,076, of which 13,762 were of children, an increase on the whole of 12,702 from the previous year; but the inspector states that as the same persons appear in many places, the number of individuals may be estimated at about 20,000. He adds that much of the increase arises from the indiscriminate charity shown.

38. METROPOLITAN POLICE.—On March 31, 1868, the police force (including the dockyards, &c.), numbered 8,450, consisting of 25 superintendents, 240 inspectors, 847 sergeants, and 7,338 constables. The accounts of expenditure are made up to March 31, the close of the financial year. In the fifteen months from Dec. 31, 1866, the expenditure amounted to 847,774*l.* Towards this sum the public purse contributed 221,217*l.* The receipts from the parishes on rate warrants issued within the fifteen months amounted to 539,302*l.* The balance in hand, arrears received, and special receipts brought the whole sum on the credit side of the account to 906,669*l.* The police rate was computed in 1867 upon a rental of 24,957,186*l.* The charge for funeral expenses is for 80 constables, and 2,065 superannuations were on the list at the date of making up the account, the payments for the fifteen months amounting to 84,235*l.* The charge for the 23 police magistrates, with their clerks and establishments, 66,024*l.* for the fifteen months, is paid out of the public purse.

The CITY POLICE on Dec. 31 numbered a total of 688 men, who are maintained entirely by the London Corporation.

39. DUBLIN POLICE.—For the year 1867 there were 52,600*l.* received from the Treasury, and 44,205*l.* raised by the town. The expenditure was 99,367*l.*, of which 44,694*l.* was for the pay of the force, with 1,661*l.* as extra pay and for rewards, and 18,403*l.* for pensions; clothing and equipments cost 5,857*l.*, and fuel and light 1,656*l.* There was a balance in hand on Jan. 1, of 9,923*l.*, which had decreased to 6,730*l.* on Dec. 31.

V.—Poor Laws, Population, etc.

40. Summary of the Amounts Expended for In-maintenance and Out-door Relief, during the Half-Year ended at Lady-day, 1868, in 655 Unions and Single Parishes, under Boards of Guardians.

Divisions and Union Counties.	Unions and Single Parishes.	Number of Parishes.	Population, 1861.	Cost of In-maintenance and Out-door Relief.		
				In-maintenance.	Out-door Relief.	Total.
I.—The Metropolis.				£.	£.	£.
1. Middlesex (part) .	28	162	2,029,192	169,939	148,886	318,825
2. Surrey (part) . .	9	17	579,748	37,433	37,283	74,716
3. Kent (part) . . .	2	11	193,427	8,889	16,997	25,886
Totals . .	39	190	2,802,367	216,261	203,166	419,427
II.—South-Eastern.						
2. Surrey (part) . .	11	136	258,946	14,833	28,915	43,748
3. Kent (part) . . .	26	418	543,549	28,612	50,010	78,622
4. Sussex	22	287	341,827	20,390	44,323	64,713
5. Southampton . .	26	345	455,587	23,675	55,722	79,397
6. Berks.	12	240	205,625	9,888	25,937	35,825
Totals . .	97	1,426	1,805,534	97,398	204,907	302,305
III.—South-Midland.						
1. Middlesex (part) .	6	58	187,325	10,570	14,597	25,167
7. Hertford	12	165	177,452	8,340	23,659	31,999
8. Buckingham . .	7	195	147,186	5,914	23,253	29,167
9. Oxford	9	297	171,057	7,043	24,234	31,277
10. Northampton . .	12	332	230,964	6,837	37,663	44,500
11. Huntingdon . . .	3	88	59,137	1,697	7,984	9,681
12. Bedford	6	138	140,479	5,037	19,484	24,521
13. Cambridge . . .	9	174	181,552	7,698	29,382	37,080
Totals . .	64	1,447	1,295,152	53,136	180,256	233,392
IV.—Eastern.						
14. Essex	17	372	379,699	23,992	59,486	83,478
15. Suffolk	17	531	335,409	12,234	46,557	58,791
16 Norfolk	22	741	427,122	17,850	62,725	80,575
Totals . .	56	1,644	1,142,230	54,076	168,768	222,844
V.—South-Western.						
17. Wilts	18	315	236,027	9,759	38,071	47,830
18. Dorset	12	287	182,193	4,840	27,572	32,412
19. Devon	20	474	589,159	15,731	66,118	81,849
20. Cornwall . . .	13	221	362,409	7,149	28,403	35,552
21. Somerset . . .	17	495	463,286	14,598	61,538	76,136
Totals . .	80	1,792	1,833,074	52,077	221,702	273,779
VI.—West-Midland.						
22. Gloucester . . .	17	363	442,983	17,248	50,171	67,419
23. Hereford . . .	7	219	106,796	3,297	13,438	16,735
24. Salop	16	303	260,229	7,764	14,776	22,540
25. Stafford	17	277	768,371	21,363	46,274	67,637
26. Worcester . . .	11	233	294,901	7,695	23,088	30,783
27. Warwick. . . .	14	272	561,334	18,778	40,898	59,676
Totals . .	82	1,667	2,434,614	76,145	188,645	264,790

SUMMARY—*continued.*

Divisions and Union Counties.	Unions and Single Parishes.	Number of Parishes.	Population, 1861.	Cost of In-maintenance and Out-door Relief.		
				In-maintenance.	Out-door Relief.	Total.
VII.—NORTH-MIDLAND.				£.	£.	£.
28. Leicester . . .	11	350	243,636	8,449	23,347	31,796
29. Rutland	2	67	23,479	780	3,072	3,852
30. Lincoln	14	751	403,850	11,326	52,451	63,777
31. Nottingham . . .	9	305	323,784	8,777	27,274	36,051
32. Derby	9	277	293,223	5,819	15,892	21,711
Totals . .	45	1,750	1,287,972	35,151	122,036	157,187
VIII.—NORTH-WESTERN.						
33. Chester	12	469	469,577	12,675	32,411	45,086
34. Lancaster . . .	28	454	2,453,910	95,021	123,847	218,868
Totals . .	40	923	2,923,487	107,696	156,258	263,954
IX.—YORK.						
35. West Riding. . .	35	610	1,420,107	35,184	94,190	129,374
36. East Riding . . .	10	373	273,674	7,342	16,525	23,867
37. North Riding . .	15	481	205,452	4,413	16,445	20,858
Totals . .	60	1,464	1,899,233	46,939	127,160	174,099
X.—NORTHERN.						
38. Durham	15	314	542,125	10,341	39,893	50,234
39. Northumberland .	12	541	342,997	7,794	33,541	41,335
40. Cumberland . . .	9	208	205,264	5,652	13,303	18,955
41. Westmoreland . .	3	110	60,946	1,562	4,102	5,664
Totals . .	39	1,173	1,151,332	25,349	90,839	116,188
XI.—WELSH.						
42. Monmouth . . .	6	164	196,977	5,566	22,962	28,528
43. South Wales . .	28	683	699,649	11,703	86,261	97,964
44. North Wales . .	19	372	414,483	6,854	65,155	72,009
Totals . .	53	1,219	1,311,109	24,123	174,378	198,501
TOTALS	655	14,695	19,886,104	788,351	1,838,115	2,626,466
Residue of the Kingdom	.	205	180,120	-	-	-
Totals of England and Wales	.	14,886*	20,066,224	-	-	-

* Inclusive of the Scilly Islands.

41. POOR RELIEF, ENGLAND.—The twentieth Annual Report issued by the Poor-Law Board states that the number of paupers in receipt of relief at the end of the year 1867 was 1,040,103, an increase of 76,903 over the number at the end of 1866. The indoor paupers on Jan. 1, 1868, were 163,080; the outdoor, 877,021, but the sum total does not agree exactly with the items. 220,097 were men, 414,042 women, 379,975 children, 6129 vagrants; 425,840 were able-bodied, 416,200 not able-bodied, and 32,251 insane. Of the able-bodied, 42,893 were men, and 114,091 women; and 269,956 children were relieved with their parents classed among the able-bodied adults; of the not able-bodied, 111,145 were men, 252,014 women, 53,041 children; and of the insane, 18,517 were men, 23,509 women, 901 children. The number of able-bodied adult paupers relieved was 185,630, an increase of 27,322, or about 13 per cent. over the number on the 1st of January, 1867. Receiving indoor relief there were 47,542 men, 44,428 women, 56,077 children, and 4357 vagrants not otherwise classed. The expenditure for the relief of the poor of England and Wales in the year ending at Lady Day, 1867, amounted to 6,959,841*l.*, an increase of 8·8 per cent. over the expenditure for the preceding year, and raising the expenditure to 6*s.* 6½*d.* per head of the population. In the metropolis there was at

Michaelmas, 1867, an increase of 11·4 per cent. in the number of paupers as compared with the corresponding period of 1866, and of 19·7 per cent. at Christmas; and in the east district these increases were no less than 20·8 per cent. and 32·4 per cent. This was in a great measure attributable to the convulsions of trade in 1866, and the depression which continued in Poplar and various parishes bordering on the Thames, producing much distress among the labouring classes connected with shipbuilding and the shipping trade generally.

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42. Poor Relief, Scotland.—The number of unassessed parishes was reduced to 102 in 1867, or two less than in 1866, and these raised the assessed parishes to 783. The number of parishes that have poor-houses, either singly or in combination, was 332, or 6 more than in 1866, and when those are completed which were in course of erection or had been resolved on, there would be 386, with an aggregate population of 2,095,669. The poor-houses in operation were 60, an increase of 2 only, with accommodation for 13,846 inmates, an increase of 216: two other houses are in course of building, and four more have had their sites or plans approved by the Commissioners. For the year ending May 14, 1867, the total expenditure was 807,631*l.*, of which 598,687*l.* was expended for the relief of the poor on the register, 31,587*l.* on medical relief, 28,007*l.* in relief of the casual poor, the remainder in management, buildings, &c. The number of registered poor relieved was 100,756, an increase of 3,590; of the casual poor, 48,519, an increase of 4,426; the number of insane or fatuous poor receiving relief was 6,768; the number of orphans or deserted children relieved was 7,153. The total amount of money received was 830,279*l.*, of which 758,495*l.* was derived from assessments, the remainder from voluntary contributions, endowments, and 9,899*l.* from loans.

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43. Poor Relief, Ireland.—In the year ending Sept. 29, 1867, the total expenditure on poor relief was 676,776*l.*, of which 418,269*l.* were for in-maintenance; 40,075*l.* were for out-door relief, 106,663*l.* for salaries and rations of officers, and 111,769*l.* for other expenses. The expenses under the Medical Charities Act were 118,118*l.*, which, with expenses under the Burial Grounds Act, the Registrations Acts, and the Cattle Plague Act, gave a total of 824,449*l.*, an increase of 69,782*l.* over the expenditure of 1866. The amount collected had been 762,644*l.*, assessed on property of the net annual value of 13,045,725*l.* The total number relieved in the year had been 317,346, of whom 258,154 were relieved in the house, 58,696 out of the house, and 496 had been sent to blind or deaf and dumb asylums. The average daily numbers in the workhouses had been 53,017, and the increase in the aggregate numbers from 1866 had been 47,173. The number admitted to workhouses in the year had been 211,207, there were 2,654 births, and 13,162 deaths. Under the Medical Charities Act there had been issued 578,722 dispensary tickets, 191,630 tickets for visiting patients at their homes, and there had been 21,982 cases of vaccination.

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44. Births, Deaths, and Marriages, England.—In the year 1867, according to the Registrar-General's Returns, there were registered 767,897 *births*, 14,709 more than in 1866. Of the total number 392,064 were males and 375,833 were females. In the year there had been 178,791 *marriages*, 8,718 less than in 1866. The *deaths* amounted to 471,102, or 29,830 less than in 1866. Of the deaths 242,756 were of males, and 228,346 of females, the greatest number occurring in the quarter ending with March; the greatest number of the births was in the quarter ending in June, and of the marriages in the quarter ending with December.

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45. Births, Deaths, and Marriages, Scotland.—In the year 1867 there were, according to the Registrar-General's Returns, 114,115 *births*, of which 58,609 were males and 55,506 were females, and of the whole 11,012 were illegitimate. The greatest number of births, 10,443, occurred in May; the smallest number, 8,705, was in September. The total number of *deaths* was 69,024, a decrease of 2,247 from 1866. Of the total, 34,363 were of males and 34,661 were of females. The greatest number of deaths, 7,375, occurred in January, the fewest, 4,710, as in preceding years, in September. The number of *marriages* was 22,521, of which 3,191 took place in June, 2,907 in December, while in May, which is regarded as an unlucky month for marriages by many, there were only 1,060. In 126 town districts the death-rate was 2·58 per cent., the birth-rate 3·95 per cent.; and the marriage-rate 0·84 per cent. In the rural districts the death-rate was 1·62 per cent.; the birth-rate 3·18 per cent.; and the marriage-rate 0·53 per cent. The illegitimate births were 9·4 per cent. in the town districts, and 9·9 per cent. in the rural districts.

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46. Births, Deaths, and Marriages, Ireland.—In 1867 there were 144,318 births registered, of whom 74,394 were males, and 69,924 females; the deaths numbered 93,911, of whom 47,196 were males, and 46,715 females. The births and deaths show a natural increase of 50,407, which, however, is more than counterbalanced by the emigration. There were 29,796 marriages registered, of which 12,816 were in the quarter ending March 31; while there were but 5,166 in that ending on June 30. The greatest number of births, 40,039, was in the quarter ending June 30; the least, 32,479, in the quarter ending Dec. 31. The deaths in March numbered 30,456, in September 18,549.

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47. Accidents on Railroads.—In the year ended December 31, 1866, the number

of persons killed or injured on the railways in the United Kingdom was—

	Killed.	Injured.
Passengers, from causes beyond their own control .	14	515
Ditto, owing to their own misconduct, or want of caution	16	7
Servants of companies or contractors, from causes beyond their own control	17	70
Ditto, from their own misconduct or want of caution	83	11
Other persons crossing at levels	20	3
Trespassers	58	3
Miscellaneous	6	0
	214	609

Of the casualties 134 were killed and 596 injured in England; 48 killed and 33 injured in Scotland; and 33 killed and 5 injured in Ireland; on the whole a little below the average.

48. Accidents in Coal-Mines.—In 1866 the number of male persons employed in coal-mines was computed by the inspectors at 320,663, the lives lost were 1,484, being one to every 216 persons employed. In 1867, the computed number of males employed was 333,116, and the lives lost 1,190; there was one life lost to every 280 persons employed. Appalling catastrophes, such as the loss of 361 lives by the explosion at the Oaks Colliery in 1866, disturb the comparison of one year with another. In 1867 the large number of 178 lives were lost by the explosion at the Ferndale Colliery.

VI.—Emigration and Colonial Statistics.

49. Emigration. — The Twenty-eighth Annual Report of the Emigration Commissioners states that in the year 1867 the number of persons emigrating from the United Kingdom was 195,953, of whom 118,088 were males, and 77,865 females; 153,782 were adults, and of these 19,494 of the males were married, and 75,443 were single; of the females 21,841 were married, and 37,004 were single. Of children under twelve years of age and infants there were 34,520, of whom 18,179 were males, and 16,341 females; and there were 4,582 males and 2,520 females whose ages were not stated. Of the total number 55,494 were English, 12,866 Scotch, 88,622 Irish, 31,193 foreigners, and 7,778 not distinguished. Of the whole, 159,275 went to the United States; 15,503 to British North America; 14,466 to Australia and New Zealand; and 6,709 to other places. The emigration of 1867 was less than that of 1866 by 8,929, and less than in any year since 1862. The emigration continues to be the largest to the United States, and was chiefly supplied from Ireland, whence, however, the emigration fell short of that in 1866 by 10,268 souls. Of the total Irish emigrants 79,571, nearly nine-tenths of the whole, went to the United States, and out of the total there were 34,895 single men. The sums remitted in 1867, as far as the Commissioners have information, amounted to 543,029*l.*, of which 202,914*l.* was in the form of prepaid passage orders, the rest in money. The mortality in the year had been very small; in the vessels sent out by the Commissioners to Australia and New Zealand the deaths did not exceed ·25 per cent., and in private ships it was about ·69 per cent. Among 136,395 persons emigrating to America in steam-vessels there were only 85 deaths or ·06, and in the sailing vessels the rate was ·09 per cent.

The Commissioners sent out during the year 4637 souls; of whom 682 went to New South Wales, 277 being single women; 3,363 to Victoria, of whom 1,597 were single women; 349 to South Australia, of whom 97 were single women; 106 to Western Australia, of whom 71 were single women. There were 2 sent to the Cape of Good Hope, 108 to Natal, and 20 to the Falkland Islands. Of the total 1,715 were English, 400 Scotch, 2,494 Irish, and 28 foreigners. There were none to Queensland. The Commissioners notice the want of domestic servants in Australia.

50. New South Wales.—On December 31, 1866, the population of the colony was 431,412, of whom 239,820 were males and 191,592 females, an increase over 1865 of 20,024; the number of births in the year had been 16,950, of deaths 7,361; the number of immigrants introduced at the public expense had been 1,204, and 648 had arrived by sea at their own expense; the smallest immigration of any year since 1847. The income derived from land of various descriptions in 1865 was 532,027*l.*, in 1866 it was 547,138*l.*, of which 226,452*l.* was from actual sales, and 272,531*l.* from rents and assessments on pastoral runs. In 1867 it was 545,060*l.*, of which 236,277*l.* was from sales, and 265,276*l.* from rents. The duty and fees for escort on gold produced only 25,331*l.* in 1866. The total ordinary revenue in 1866 was 2,037,478*l.*, and 769,344*l.* was raised by loan. The total expenditure was 2,100,820*l.* The exports in 1865 were valued at 9,563,818*l.* (this is a corrected statement from the preceding account), and in 1866 at 9,913,839*l.* The imports in 1865 were valued at 10,635,507*l.* (corrected), in 1866 at 9,403,192*l.* The number of vessels entered inwards was 1,912 of 635,888 tons burthen in 1865, and 2,099 of 730,354 tons in 1866, of which 1962 of 673,392 tons were British. Outward there were cleared 2,259 vessels of 784,381 tons in 1866, of which 2,117 vessels of 727,525 tons were British. Gold had decreased in quantity, the value exported in

1866 was only 928,275*l.*, while coal had increased, 774,238 tons had been raised, and upwards of half a million tons had been exported. The extent of land held by freeholders and leaseholders was 7,448,200 acres in 1866, there being 15,173 freeholders and 9,456 leaseholders, each freeholder on the average holding 324 acres, and each leaseholder 276; about 6 per cent. of the whole was under cultivation. The extent of land alienated 7,900,360 acres; of unalienated 93,852,305 acres. The number of horses, horned cattle and sheep in the colony on Jan. 1, 1867, was, horses, 278,437, a decrease of 4,150, 1,771,809 horned cattle, 11,562,125 sheep, and 137,915 pigs; a decrease on all but the sheep. The governor complains that the returns are imperfect, and believes all to be below the real number. The higher price of meat in the colony has had an important effect on the boiling-down project; in 1866 the quantity of tallow produced sunk from 73,703 cwt. in 1865, to 19,416 cwt. The governor in his report, points to the growth of some species of manufacture in the colony, among them especially those of glass and paper.

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51. VICTORIA.—According to the estimate of Mr. Archer the Registrar-General, based on a comparison of the births and deaths, and the arrivals and departures, the population on December 31, 1866, was 644,033. The arrivals were 32,178, the departures 27,629; the births were 24,934; the deaths, 12,089. On June 30, 1868, he estimated that the population then amounted to 670,148. From a return dated Sept. 26, 1867, the number of miners employed was 67,150, of whom 48,476 were Chinese. Melbourne, the capital, had, in June, 1867, an estimated population of 47,000, independent of the suburban boroughs of Emerald Hill with 12,000, and Hotham (or North Melbourne), with 9,916. There are also eleven other towns in the colony with populations of 5,000 or upwards. They were Avoca, 6,400; Ballarat, 31,000; Castlemaine, 7,000; Daylesford, 5,500; Geelong, with its suburban boroughs, 23,037; Keyneton, 9,500; Maldon, 8,500: Sandhurst, 15,000; Stawell, 5,000; Williamstown, 5,450; Yankandandah (the chief town of the Ovens mining district) 9,300. All these towns are well furnished with banks, hospitals, churches, and other public buildings, and each has at least one newspaper. Care has been taken to preserve a supply of water for the towns, large reservoirs have been formed, of which 16 belong to the government, 22 are demised to public bodies, 5 are in course of construction, and 23 others are projected. Education is attended to; common schools are established in most districts, and are extending yearly. The Registrar-General states that in 1866 there were 1,080 public and private schools, with 79,378 scholars: of whom 68,000 were in schools receiving aid from the government. The average attendance in common schools was 51,500: and the sum voted for education in the year was 174,247*l.* On September 30, 1867, the revenue had amounted to 3,040,761*l.*, an increase of 91,258*l.* over the revenue for the previous twelvemonth. The increase was in Customs' duties, which under the new Act have increased from 1,157,361*l.* to 1,382,494*l.*; the increase in the last quarter being from 293,471*l.* in the corresponding quarter of 1866 to 448,401*l.* The year's income from duties on spirits reached 58,345*l.*; on tobacco, 129,716*l.*; on sugar, 67,873*l*; on tea, 48,898*l.*; on wine, 37,664*l.*; on beer, 31,360*l.* The export duty on gold amounted to 49,172*l.* The excise duties were only 40,405*l.* The territorial revenue declined to 785,323*l.* The income from railways fell from 568,004*l.* to 497,092*l.*; and the postage from 133,160*l.* to 112,967*l.* The railways open in 1866 had a length of 254 miles; and the total receipts had been 724,186*l.* There were 3,111 miles of telegraph wires; they had carried 277,788 messages in the year, and the receipts had been 35,285*l.* There were 555 post offices in the colony, and 8,631,133 letters had passed through them, of which 6,650,000 had been inland letters, and 5,438,388 newspapers, including 808,762 British and foreign; the income from the postage had been 127,327*l.*, the expenditure 139,633*l.* There were 107 money order offices, from which were issued 60,019 orders for 218,851*l.*, including 62,998*l.* payable in the United Kingdom, while orders from foreign countries for 47,106*l.* were paid in Victoria. The value of imports was 14,771,711*l.*, the value of exports was 12,889,546*l.* The export of gold amounted to 5,909,987*l.*, exclusive of specie, 968,293*l.* The export of wool amounted to 3,196,491*l.* The total number of vessels entered inwards was 2,078, with a tonnage of 649,979. The outward-bound shipping comprised 2,203 vessels and 675,741 tons. The statistics of production show that the approximate produce of gold in 1866 was 1,479,195 oz.: viz., 521,017 oz. from quartz veins, and 958,178 from alluvial workings. In 1867 the quantity exported was 1,433,687 oz., valued at 5,738,993*l.* In June, 1866, the savings-banks had 16,985 depositors, with deposits to the amount of 642,028*l.*, and in the Post Office savings-banks, begun in 1865, the deposits amounted to 58,690*l.* 26 building societies furnished returns, shewing assets valued at 650,227*l.*, with 8636 members. In the year ending March 31, 1868, the number of acres under wheat had been 220,734 against 208,588 in 1867, but the produce of 1868 had been very deficient; under oats there were 124,558 acres against 129,284 in 1867; under barley there were 15,342 acres, maize, 624 acres, and rye, 1,382 acres, against 9,915, 1,627, and 1,382 of the like crops in 1867; rye and bere produced 20,284 bushels in 1868, against 36,155, in 1867; all the cereal crops fell below the average of production in 1868, and so did the green crops. Of these in 1868, there were 34,565 acres under potatoes, producing 96,289 tons; under hay there were 104,650 acres, against 92,472 acres in 1867; but the produce was only 130,357 tons, while in 1867 the produce had been 161,243 tons; under vines, there were 4,176 acres, an increase of 65 acres over 1867. The

average produce in the two years was: in 1867—wheat, 22·3 bushels per acre; oats, 30 bushels; potatoes, 2·7 tons, hay, 1·7 tons; in 1868, wheat, 15·4 bushels; oats, 18·6 bushels: potatoes, 2·6 tons; hay, 1·2 tons. The number of holdings exceeding one acre had increased from 22,698 in 1867, to 25,214 in 1868; and the extent of land under tillage had increased from 592,915 acres to 634,270 acres.

52. QUEENSLAND.—The number of immigrants in 1866 was 9,847, of whom 1,157 were sent by the Emigration Commissioners, 7,381 went in ships belonging to the Black Ball line, 1,304 went from German ports, and 4 went by short ships. The annual report of the Commissioners states the total population on December 31, 1866, as 96,172, of whom 57,288 were males, and 38,884 were females. According to the governor's report the extent of land sold in 1866 was 113,598 acres, producing 141,325*l*., a decrease of 83,078*l*. from the preceding year; but 31,380 acres had been leased, producing 2,805*l*. There were 24,433 acres under cultivation, an increase of 10,019 acres. The total amount of land alienated in fee was 694,345 acres on December 31, 1866. Of the land under cultivation, 2566 acres were in wheat, 9930 in maize, 113 in barley, 703 in oats, 1587 in potatoes, 2884 in cotton, 607 in sugar, 202 in vineyards, 1,550 in gardens, 734 in green fodder, 2,878 in dry fodder, and the remainder in various small crops of millet, arrow-root, tobacco, &c. The horses numbered 52,401, an increase of 1,310; the horned cattle numbered 919,414, an increase of 71,068 over 1865; the sheep numbered 7,278,778, an increase of 683,812; and the pigs numbered 13,961, a decrease of 927. The imports in 1866 were valued at 2,467,907*l*.; the exports at 1,366,491*l*., an increase of 213,027*l*. The revenue of 1866 was 617,673*l*., the expenditure 696,828*l*. The public debt at the end of 1866, was 2,150,300*l*. There were 129 schools (exclusive of Sunday schools), with 6,738 scholars. There is a government savings bank, in which 86,759*l*. were deposited to the credit of 2,484 depositors.

53. SOUTH AUSTRALIA.—The population, according to a census taken on March 25, 1866, consisted of 85,334 males, and 78,118 females, a total of 163,452. On December 31, it had increased to 169,153, an increase of 12,548 over the preceding year; the increase was produced by an excess of births over deaths of 5,593, and an immigration of 6,955, of whom 3,891 were despatched by the Emigration Commissioners. The land sales in the year included 214,429 acres, a decrease of 102,047 acres from those of 1865, producing 322,429*l*. The total extent of land sold to the 31st of December, 1866, was 3,426,292 acres. The extent of land enclosed was 4,539,089 acres, of which 739,714 acres were under cultivation; of this, in 1866-7, there were 739,714 acres under wheat, which produced 6,561,451 bushels; and there were 6,629 acres of vineyards. The number of horned cattle in the colony was 123,820; of sheep, 3,911,610. This is a considerable decrease in horned cattle as compared with 1865, when the numbers were 158,057, and an increase of 132,302 sheep. A site for a settlement, it is stated, has been found on the Liverpool river. The revenue of the colony in 1866 was 949,774*l*., a decrease of 139,354*l*. from that of 1865; the expenditure, 1,064,323*l*., an increase of 273,819*l*., of the whole 402,245*l*. were expended on public works. The imports were valued at 2,835,142*l*., a decrease of 92,454*l*. from those of 1865, exclusive of a re-exportation to the value of 319,014*l*.; the exports at 2,858,737*l*., a decrease of 271,109*l*. Wool, wheat, and copper are the principal articles of export. Of wool there were 20,908,085 lbs.; of wheat and flour 38,808 tons (but this was little more than half the amount of 1865); of fine copper 129,272 cwts., and copper-ore 16,824 tons. There are 56 miles of railway open, on which in 1866 were conveyed 405,502 passengers, and 208,984 tons of merchandize; and there were 1,075 miles of telegraph, along which were sent 121,153 messages. The post carried 2,703,105 letters and 1,968,120 newspapers. In the savings banks 7,679 depositors held 266,700*l*. For education there were 292 schools, at which there were 8,160 boys and 6,530 girls. There were paid to teachers by the Government 14,662*l*., and 14,622*l*. were gathered in school fees, or 19s. 2½d. for each scholar.

54. WESTERN AUSTRALIA.—The population of this colony on December 31, 1866, was 21,065, of whom nearly two-thirds were males, an increase in the year of 805. There had been only 721 immigrants, of whom 112 were sent out by the Emigration Commissioners, and 253 were convicts. The land-sales, licences, leases, &c., produced 18,047*l*. in 1866, and 21,422*l*. in 1867. The total revenue in 1866 was 89,382*l*.; the expenditure 84,652*l*.; large sums have been expended on roads, bridges, and other public works. The value of the imports in 1866 had exceeded that of 1865 by 83,494*l*., while the exports had decreased by 16,173*l*. The number of sheep had increased from 445,044 to 481,040, but cattle had decreased by about 4000; a drought having affected injuriously both corn and stock. A new settlement in the great Australian Bight, just within the boundary of the colony on the east, had been surveyed, possessing a good port; and other settlements had been formed on the north-west coast.

55. TASMANIA.—In 1866 the population was 97,368, and the report explains the slow advance made, through the departures usually exceeding the arrivals. In the year there had been 4,769 arrivals, and 4,079 departures. The marriages had been 571, the births 2,805, the deaths 1,327. Imports and exports have both been decreasing for some years, but in 1866 the imports increased. The imports of 1866 were estimated at 942,107*l*. in value, an increase of 179,732*l*. from the previous year; the exports (including imports re-exported) 834,606*l*., a decrease of

46,359*l.* The revenue for 1866 had been 245,421*l.*; the expenditure 242,361*l.*, of which 46,474*l.* was upon public works. The land under cultivation in 1866 was 279,022 acres, an increase of 28,646 acres from the previous year. Wheat occupied 71,348 acres, barley 4,596, oats 34,358, peas 3,655, potatoes 10,520, and hay 33,762 acres; minor crops, including tobacco, forming the remainder. The governor, in his report, complains that agriculture is backward; labour-saving implements have not been introduced to any considerable extent, although much needed; that the arable land is overworked, and not well manured. The successful introduction of salmon and trout into the rivers is noticed. The live stock in the colony comprised 21,567 horses, 33,259 pigs, 88,370 horned cattle, sheep 1,322,804, and goats 2,486.

56. NEW ZEALAND.—On December 31, 1866, , the European population, exclusive of the military, was estimated at 204,114, of whom 125,080 were males, and 79,034 were females. The number of immigrants who arrived in 1867 was 3,984. The land-sales in 1866 included 603,406 acres, producing 547,616*l.*, an increase of 202,780*l.* over the preceding year. The imports in 1866 were valued at 5,894,863*l.*, an increase of 299,886*l.* over the preceding year; the exports at 4,520,074*l.*, an increase of 806,856*l.* The quantity of gold exported was 735,376 ounces, valued at 2,844,517*l.* The total ordinary revenue for 1866 was 1,862,722*l.*, the expenditure was 1,912,124*l.*, including above half a million for public works and buildings, surveys, &c. Loans were raised to the amount of 1,302,477*l.*, and debt paid to the amount of 1,009,346*l.* The land policy excites much attention in the colony, and during the year there were 17 distinct acts of the legislature concerning it. The most marked feature is the withdrawal of free grants to naval and military officers desirous of settling there. A census was taken in December, 1867, and by the kindness of the Registrar-General we are enabled to add certain principal results. The population was then 218,637, with 1,455 military officers and men with their families, a total of 220,092, of whom 133,102 were males, and 86,990 females. No census was taken of the Maori population, but an estimate is made that they number 38,540 men, women, and children. The land inclosed amounted to 3,455,535 acres, under crop there were 676,867 acres; sheep numbered 8,418,979; horses, 65,704; mules and asses, 323; cattle, 312,829; goats, 11,964; pigs, 115,090; and 676,013 head of poultry.

57. CANADA.—In the course of 1867 the Emigration Commissioners report an immigration by the St. Lawrence of 30,757 persons, of whom 5,151 were English, 4,260 Irish, and 1,827 Scotch, 3,773 from Germany, 13,173 from Sweden and Norway, 1,501 Bohemians, and 1,072 from other places. The steerage passengers numbered 28,715, and about two-thirds, including nearly all the foreigners, proceeded to the United States. Agricultural labourers and domestic servants are still stated to be in great demand. There is no report from the governor; but the value of the imports in 1866 for the united dominion was 7,702,131*l.*; of the exports, 6,867,503*l.*

58. From NOVA SCOTIA and NEW BRUNSWICK no returns have been received; but in 1867 there were 305 emigrants despatched to Nova Scotia, and 203 to New Brunswick.

59. NEWFOUNDLAND.—The information from the governor is only of a general character. In 1866 the cod-fishing had not been very productive; the potato disease had prevailed; but the seal-fishing had been very successful, and copper mining was being largely extended. Of the ore more than 2,000 tons had been shipped, and was estimated to be worth from 10*l.* to 20*l.* per ton. The bulk of the miners were Newfoundland men, to whom the working of these mines had opened a new source of profitable employment.

60. PRINCE EDWARD ISLAND.—This island has not been included in the Confederation. It contains 1,365,400 acres, of which 450,000 are held by occupiers in fee simple, and 244,779 belong to government; 669,600 acres belong to proprietors, of which 209,702 are held by tenants under lease, and 459,898 are unsettled. The total revenue in 1866 was 63,628*l.*, of which 43,490*l.* was derived from import duties; the expenditure was 102,888*l.*, but of this 54,923*l.* was for the purchase of land from non-resident proprietors; and there was 48,362*l.* due on lands sold. The cessation of the reciprocity treaty with the United States, which took place in March, 1866, and the imposition of prohibitive duties on the products of the island, occasioned much uneasiness, and the exports to the United States fell from 120,928*l.* in 1865, to 21,633*l.*; the imports from 90,800*l.* to 74,186*l.* The effects were not so injurious as were expected; the products found other markets, and the imports rose from 381,015*l.* to 444,745*l.*, while the exports were 246,816*l.* (exclusive of 136,292*l.*, the value of ships built and sold), against 291,545*l.* There were 331 schools open, at a public expense of 13,723*l.*; and there were 13,970 scholars on the roll, but the average daily attendance had been only 8,078. The Emigration Commissioners give no notice of the island, but 13 males and 11 females, all English or Scotch, were sent out by them.

61. BRITISH COLUMBIA.—The Emigration Commissioners give no return for 1866. The governor's report states about 25,000*l.* were expended in opening and improving roads; In the year, he says, that from Yale, the head of the navigation on the Frazer, he drove to Cariboo, a distance of 400 miles. "From Yale to Lytton, for 56 miles, one passes through the fearful gorges or cañons of the Frazer, where it rushes between the perpendicular sides of the Cascade mountains. The road is sometimes cut through the solid and over-arching rock; at others, built up by scaffolding against a mountain side, hanging

some 600 or 700 feet sheer over the river." The report says the settled white population in 1866 cannot be estimated at more than 6,000, with about 40,000 natives. The revenue for 1866 had been 86,000*l.*, a large falling-off, owing to the extraordinary amount of importations in the previous year, which had occasioned serious losses. The expenditure had been 91,000*l.*; the public debt at the close of the year was 295,000*l.* The value of the imports in 1866 had been 298,000*l.*, a decrease of 179,000*l.* from 1865; the exports amounted to 43,000*l.*, an increase of 10,000*l.* A considerable trade had been growing in lumber and spars; great strides had been made in agriculture and stock raising; and mining operations had been carried on with a fair amount of success.

62. CEYLON.—The governor's report for 1866 shows that the revenue for the year was 962,873*l.*, which was 15,619*l.* less than in the previous year. The expenditure for 1866 was 917,669*l.*, an increase over that of the preceding year of 79,476*l.* In 1865 the imports amounted to 3,298,511*l.*, in 1866 to 3,517,184; the exports in 1865 to 3,069,155*l.*, in 1866 to 3,070,247*l.*, exclusive of specie. Including specie, the imports for the two years amounted to 5,022,179*l.* and 4,961,061*l.*; the exports to 3,565,157*l.* and 3,586,453*l.* Fully one-half of the imports are from British Possessions in India, and two-thirds of the exports are to the United Kingdom. Coffee, cinnamon, cocoa-nut oil, and coir were the chief articles of export. Of coffee, 2,286,880 lbs. were exported in 1866, 890,484 lbs. of cinnamon, 1,042,853 gallons of oil, and 46,687 cwts. of coir; rice and cotton manufactures were among the chief imports. There were 280,097*l.* expended on public works, including the formation of new roads (in which private contributions liberally assisted), the repair and maintenance of old and the construction of new bridges (which are principally iron lattice work over streams), government houses, and other public buildings. In August, 1866, the railway from Colombo to Kandy was opened for passenger traffic; by the close of the year 124,096 passengers had been carried; the goods traffic was only open for somewhat more than half the distance; the total receipts were 23,262*l.*; the working expenses 26,295*l.* The telegraph in 1866 had produced 8,850*l.*, while the expenses, including repairs of lines, had been 6,660*l.* The population appears to have decreased since 1863, the governor stating it at only 2,039,330 for 1866, and that there had been 18,921 marriages, 48,223 births, and 39,125 deaths. The number of schools was 357, with 14,074 pupils, a decrease from 1865 of 62 schools and 672 pupils. The governor attributes the decrease to the inefficiency of the teachers supplied, which it was the intention to amend by the establishment of normal training schools; the amount contributed by the government toward the schools was 14,875*l.* in 1866.

63. MAURITIUS AND SEYCHELLES.—The population on Dec. 31, 1866, was estimated at 341,165. There was no immigration in 1867, and 3,408 emigrants returned to India, and in that year a virulent fever caused great mortality. The revenue, exclusive of the railway accounts, was 562,323*l.*; the expenditure 566,730*l.* The imports were valued at 2,048,539*l.*, exclusive of specie, but the governor in his report says this must be much below the real value, as in consequence of the dearth, the rice and other grain imported were estimated at less than half their value in the custom-house returns. The exports were valued at 2,501,805*l.* The course of trade had considerably changed; formerly Great Britain received the greater part of the exports, which consist mainly of sugar, upon which the discriminating duty has had a marked effect; only the inferior sugars, paying the lowest scale of duty, now go to England, the refined sorts being sent to Australia, which took in 1866 to the value of 971,101*l.*, and to India, which took to the value of 453,304*l.*, these two markets received together 70,000 tons out of 109,000 exported in the year, England receiving about 38,000, of the value of 718,567*l.* The exports to Madagascar amounted to nearly 50,000*l.*, and to the Isle of Bourbon (Réunion) it increased from 30,000*l.* to 60,000*l.* The governor tells a mournful tale of the bad harvests, the dearth, and the consequent increase of crime, but trusts that Mauritius is yet "sound in the main."

Of its dependency, the *Seychelles*, the lieutenant-governor gives a more cheerful account. There was some decrease of trade, the result of the failure of the crops and the commercial depression in the Mauritius; but the making of roads, the building of bridges, and improving the supply of water had been successfully prosecuted. At Port Victoria a decided sanitary amelioration followed the laying-on of water to the centre of the town, where a public fountain delivered 2,400 gallons per hour. But the most noticeable matter, perhaps, is the rapid growth of the coral all about the islands. In the harbour soundings give only 2½ fathoms where three years ago it was 6 or 7 fathoms. At the anchorage off St. Ann's Island the soundings have decreased from 14 to 7 fathoms; on the banks which surround the group there are only from 6 to 10 fathoms where there are 39 to 40 marked on the charts, and fresh banks are forming in positions which will render them dangerous to navigation.

64. JAMAICA.—In the year 1866-7 there were 1,710 immigrants introduced from India. The governor's report tells us that the revenue for the year ending September 30, 1866, had been 327,359*l.*; that the gross expenditure had been 395,597*l.*; that the public debt was 908,838*l.*; the charge for interest and sinking fund was 65,117*l.* The imports for 1866 were valued at 1,030,796*l.*, a decrease of 20,188*l.*; the exports at 1,152,898*l.*, an increase of 240,894*l.*, and they had been increasing for several years, sugar, coffee, ginger, and wood having all been produced and exported in larger quantities.

The constitution of the island had been altered, the legislative council being now appointed by the Crown. The Emigration Commissioners state that out of 2,724,262 acres contained in the island, only about 660,000 acres appear to be under cultivation or useful occupation. They add: "From the extensive abandonment of estates, and the absence of proprietors, there are large tracts having no accessible owner from whom legal titles can be obtained, or by whom unlawful encroachment can be repressed. No state of things could be more favourable to squatting, and when the disposition and habits of the negro are considered, it can be no matter of surprise that squatting in the worst forms has extensively prevailed." A law has been passed for the re-organization of the police, and remedial measures are to be taken.

65. TRINIDAD.—The number of Indian immigrants despatched to Trinidad in 1866-7 was 2,999. The export of sugar in 1866 had been 813,349 cwt., an increase of 257,514 cwt. from that of the preceding year; but there had also been exported 57,543 cwt. of cacao, and the cultivation was increasing. The total amount of imports had been 878,357*l.*; of the exports 1,022,338*l.* The revenue had been 226,218*l.*, an increase of 6,900*l.* over 1865; the expenditure 203,428*l.*, a decrease of 18,857*l.* The public debt was reduced from 179,500*l.* to 172,800*l.* The land settlement was being worked satisfactorily; some wharf extension works had been carried out, and the hospital of San Fernando had been greatly improved; this hospital and that of Port of Spain had 309 patients in them on December 31, 1866.

66. BARBADOES.—From this island there has been for some years an emigration, principally to Demerara, which has latterly decreased, and it is not noticed in the Report of the Emigration Commissioners. The governor's report for 1866 again states that, notwithstanding the emigration, the population certainly increases, but no estimate has been made of the numbers. The revenue for 1866 had been 103,935*l.*; the expenditure 95,838*l.*; the whole of the public debt had been paid off, and there was a balance in hand of 16,000*l.* The imports were valued at 988,082*l.*; the exports at 1,246,844*l.* In 1866 the export was 57,892 hogsheads, the largest crop the colony ever made, but the governor says it was raised at an expense for labour and manure that he feared would not be found remunerative. In 1867 the quantity shipped was only 53,387 hogsheads, but the price was better. In 1866 the crop of cotton rose in value from 7,930*l.* to nearly 10,000*l.*

67. ST. VINCENT AND GRENADA.—To *St. Vincent* 491 Indians were sent from India in 1866-7. The number under indenture at the end of 1866 was 625, but an arrival in 1867, and the increase by births, brought the number up to 790 by June, although 332 had passed out of indenture. The revenue for 1866 amounted to 21,239*l.*; the expenditure to 20,281*l.*, and some local debts were paid off. The imports were valued at 158,153*l.*; the exports at 194,173*l.*, a large increase, the quantity of sugar having increased from 8,456 hogsheads in 1865, to 10,985 in 1866. In *Grenada* there was no immigration in 1867. In June there were 1,858 coolies on the island, who were doing well. The cases of ill-usage of those noticed last year, as brought by the Ripon, had been prosecuted, but not very successfully. The total population in 1866 was estimated at 35,672. The gross revenue in 1866 amounted to 21,464*l.*; the expenditure to 21,517*l.* The imports were valued at 122,255*l.*; the exports at 113,237*l.*, an increase of 8,144*l.* in the imports, and a decrease of 4,708*l.* in the exports.

68. ST. LUCIA AND TOBAGO.—There have been no Indian immigrants introduced into *St. Lucia* since 1862, but there were in June, 1867, 1,208 on the island, of whom 1,085 were still located on estates; many would become entitled to back passages during the year, but an Act had been passed, allowing of a commutation of 10*l.* per head. The total population is estimated at 29,519 persons, of whom 14,569 are males, and 14,860 females; only 888 are whites. The gross revenue for 1866 was 19,699*l.*; the expenditure, 13,939*l.* The imports were valued at 91,904*l.*; the exports at 109,482*l.* In *Tobago* the revenue for 1866 had been 9,814*l.*; the expenditure 10,153*l.* The imports were valued at 57,645*l.*; the exports at 69,872*l.* The quantity of sugar exported had been 90,295 cwt., the largest for many years. There were 2,180 children attending the schools, exclusive of Sunday schools.

69. ST. KITTS, ANTIGUA, AND ANGUILLA.—The only immigrants received at *St. Kitts* in 1867 had been 51 from Madeira. The revenue for 1866 had been 24,504*l.*; the expenditure had left a balance of 5,436*l.* in the treasury. In *Antigua* the gross revenue had been 71,263*l.*, of which 26,080*l.* had been raised by debentures for constructing waterworks: the gross expenditure had been 64,511*l.*, of which 24,163*l.* had been expended on the waterworks, which had proved a source of great advantage and comfort to the inhabitants. The public debt at the end of the year was 47,768*l.* The imports in 1866 had amounted to 187,704*l.*, the exports to 291,860*l.*; both considerably in advance of the preceding year: the export of sugar had been 17,300 hogsheads against 9,524 in 1865; of molasses there were 7,859 puncheons against 4,987; of rum, 696 puncheons against 576; and of cotton, 590,091 lbs. against 279,400 lbs. At *Anguilla* a fresh lease of the salt ponds had been granted, after the failure of a company, at a royalty of 2½*d.* per barrel on all exported, to an individual at a royalty of ½*d.* per barrel, on condition of a certain quantity being exported. The constitution of the Leeward Islands has been changed; the representative system has been abolished, and there is

now a governor and a single legislative council, most of the members being *ex-officio* or nominated by the Crown. In the session of 1867 an Act was passed for the settlement of claims of land, as from the imperfection of the records, the titles had become very difficult to substantiate. It provides a commission to examine and decide claims and confirm by a grant.

70. MONTSERRAT, NEVIS, VIRGIN ISLANDS, AND DOMINICA.—The estimated population of *Montserrat* at the end of 1866 was 8,348. The revenue was 5,325*l.*, the expenditure 5,671*l.* The imports amounted to 18,684*l.*, the exports to 19,898*l.* The report states that "the agriculture of the island has been at a stand-still, and almost abandoned." The public buildings, court-house, jail, and churches are all in a state of dilapidation. In *Nevis* the population numbers about 11,000, and it increases by natural fecundity, but the Report complains of the small proportion of marriages, mainly due to a silly fashion of expensive bridals: "a peasant's nuptials," it says, "is not accomplished under an average expenditure of 100*l.*" In the *Virgin Islands* the revenue for 1866 was 1,995*l.*, the expenditure a little more, but the whole of the public debt had been paid off. The imports amounted to 10,241*l.*, the exports to 8,313*l.* In *Dominica* the population in 1866 was estimated at 26,398; the revenue amounted to 14,321*l.*, exclusive of a loan of 4,100*l.*; the expenditure was 18,367*l.* The imports were valued at 61,188*l.*, the exports at 106,452*l.*, an increase in both.

71. BAHAMAS.—The report of the governor states that 1866 saw the commencement of a return to the usual state of commerce; that is, a somewhat increased business over that of 1861, the year preceding the blockade-running. The revenue sunk to 51,080*l.* from 84,487*l.* in 1865; the expenditure, which could not be reduced so suddenly, to 76,985*l.*, a decrease of only 1,564*l.* In 1865 the total imports were valued at 1,470,467*l.*; in 1866 they were only 328,622*l.* In 1865 the exports were valued at 2,063,474*l.*; in 1866 only 261,976*l.* The hurricane which swept over the islands in October, had greatly injured the crops. The oranges were destroyed, and the trees to a great extent uprooted. The pines had been gathered and shipped, but the plants were so damaged that less than half a crop could be expected for some succeeding years; and the cotton suffered greatly; the crop was very promising; on Long Island alone it was valued at 20,000*l.*, while the quantity exported from all the islands only realized 6,947*l.* In 1866, partly in consequence of the hurricane, there were 46 wrecks and 48 casualties. The Post Office returns also exhibit marked changes from the feverish excitement of the blockade time. In 1864 there were 43,903 letters sent out of the colony, 1,309 interinsular letters, and 11,671 newspapers received; in 1866 the letters sent out were only 17,163, the newspapers received 7,372; but the interinsular letters increased to 2,762. The savings bank declined; only 3 new accounts were opened; the deposits were only 24*l.* 14*s.*, the withdrawals 424*l.*, the total number of depositors was only 143, and the amount deposited 4,147*l.* The price of labour had been constantly lowering throughout the year. For agricultural purposes there had been 84 cessions of land in the year to the amount of 1,477 acres, one being a sale of 1,000 acres of forest land in Andros, a large increase on the average amount of sales. Attempts were being made also to place the tenure of land on a more satisfactory footing.

72. TURKS AND CAICOS ISLANDS.—The general revenue of these islands in 1866 amounted to 11,579*l.*, an increase over 1865 of 1,614*l.*; the expenditure was 9,141*l.*, an increase also of 379*l.*; and there was a balance in the treasury of 5,482*l.* There was also what the governor's report terms a Crown revenue amounting to 4,971*l.*, of which 3,488*l.* arose from the duty on salt, which is applied to public works and improvements, on which were expended 4,754*l.* The imports amounted to 56,090*l.*, a decrease of 24,459*l.* from 1865; the exports to 54,310*l.*, also a decrease of 7,693*l.* The production of salt, however, the staple of the islands, had increased from 1,251,344 bushels to 1,930,988 bushels, of the value of 37,193*l.* It is exported mainly to the United States and the British North American colonies. The hurricane, which commenced here on September 30, was even more severely felt than in the Bahamas. Roads were torn up and public buildings destroyed, 51 lives were lost, besides 42 lost at sea, and sickness followed from the potable water having been rendered brackish by the influx of the sea. A return shows that 717 houses were destroyed, with 11 salt-houses, and 982,350 bushels of salt. There were 4,301 persons rendered houseless; education was stopped, as the school buildings which were not destroyed were used for the shelter of the destitute. The damage was estimated at 75,860*l.*, not including the foreign vessels lost or injured; and subscriptions for the relief of the sufferers was promptly afforded to the amount of 10,000*l.* from various quarters.

73. BRITISH GUIANA.—On June 30th, 1867, there had been 4,527 immigrants despatched from India, and there were 42,166 labourers working on estates, of whom 2,765 had re-indentured themselves at a bounty of rather more than 10*l.* per head, and 451 had been returned to India, taking with them an average of 30*l.* each. The deaths during the six months had been 2·17 per cent. The export of sugar in 1865 had amounted to 1,133,135 cwt., and there was an increase in 1866. The revenue for 1866 was 304,816*l.*; the expenditure, 310,000*l.* The imports were valued at 1,530,674*l.*, an increase of 171,382*l.*; the exports at 2,170,957*l.*, an increase of 84,328*l.* The increase was chiefly in sugar, 101,095*l.*, and in cotton, 1,995*l.*;

there was a decrease in timber, rum, coffee, and cocoa.

74. HONDURAS.—The lieutenant-governor's report gives the revenue for 1866 as 27,333*l.*; the expenditure as 31,094*l.*; the public debt was 32,919*l.* The imports were valued at 169,033*l.*; the exports at 277,155*l.* Agriculture was extending, settlements were being formed on the frontier, and 600 acres had been planted with sugar-canes. The lieutenant-governor complains that the form of government does not work well; that public works are interrupted and materials wasted by dissensions in the legislature; that a necessary road has been left half completed, that the swing-bridges for the town and an iron lighthouse are left to rust on the ground, and a useful canal left unfinished.

75. HONG-KONG.—The governor's report for 1866 states the population, according to the registrar-general's returns, to be 115,000 on December 31, of which 29,459 were females; exclusive of the military and naval forces; but he considers this under the truth, and estimates that at least 600,000 passengers arrive at or leave Victoria every year. He points out the peculiarity of this colony, a small barren island, a mere depôt of exchange, which it has become in consequence of the entire freedom from duties, and the excellence of its port; it has no means of raising a large revenue; that the 160,000*l.*, the revenue for 1866, would not meet the expenses, and a stamp-tax was about to be introduced. The mint established had been an utter failure; the Hong-Kong dollar is only taken by the Chinese for its weight of pure silver, no one brings silver to be minted, and most of what have been coined lie unused in the treasury. As there are no custom-duties no return can be made of the value of imports and exports, but it is estimated that 3,783 vessels of 2,015,747 tons, of which 1,727 of 1,047,447 tons were British, entered or cleared from the port, exclusive of the Chinese and coasting trade, which is very large. The governor complains of the prevalence of crime in the colony, which he attributes to the criminals of the continent taking refuge in the island, and suggests a stricter mode of granting certificates of residence. He adds a return of the Chinese trade, drawn up by Consul D. B. Robertson, of Canton, from 14 places in China, for 1864, 1865, and 1866. In the last year the imports amounted to 57,487,378*l.*, exclusive of bullion to the value of 13,444,137*l.*; the exports to 34,307,678*l.*, with bullion to the value of 14,592,585*l.*

76. LABUAN.—The population at the end of 1866 amounted to 3,828, exclusive of military and convicts. The revenue was 3,913*l.*, exceeding that of 1865 by 722*l.*, an improvement arising from the increased sale of land, and the payment of rent from the coal-mines. The expenditure was 6,960*l.*, a decrease from the previous year, but largely in excess of the revenue, although less had been spent on public works and roads, but a large police force had been found necessary in the vicinity of the coal mines. The total value of imports in the year was 109,134*l.*, the exports 58,293*l.* The mines had produced 11,317 tons of coal, and two steam vessels were sent by the company to Singapore and China, *via* Manilla. A new church, dedicated to the Holy Saviour, was completed and consecrated during the year.

77. GIBRALTAR.—The resident population of Gibraltar, according to the last census, amounted to 15,462, exclusive of the military, the convicts, and aliens on temporary permits. The revenue of 1865 amounted to 32,094*l.*, an increase of 2,268*l.* over that of the previous year. The current expenditure for ordinary works and administration amounted to 30,162*l.*, and the real expenditure to 34,789*l.*, including a sum of 3,619*l.* for alterations and rebuilding at the Government House, and 300*l.* for repairs to the Civil Hospital. The number of births among the resident population was 633, and there were 855 deaths. There are 10 schools in Gibraltar, in which are educated 1,062 boys and 864 girls, besides seven regimental schools, which have upon their books 235 girls and 232 boys. The duty collected on spirits increased in 1865 by 1,086*l.*, on wines by 640*l.*, the rates and duty in the port department by 278*l.*, and ground and house rents by 182*l.*

VII.—MISCELLANEOUS.

1. *Education and Connected Matters.*

78. EDUCATION IN GREAT BRITAIN.—In the inspected schools, in the year ending Aug. 31, 1867, the total number of children on the books was 1,592,912 of whom 1,376,882 were in England, and 216,030 in Scotland. In England 1,340,576 of the children were paying school-fees not exceeding 4*d.* per week, and 36,306 at a rate exceeding 4*d.* In Scotland, 199,401 were paid for at or below 4*d.* per week, whilst 16,629 paid higher rates: a note states that in Scotland all children, but those of the very highest classes, frequent the same elementary schools. An additional return shows that there were 8,002 schools, of which 6,525 were in Engand and Wales, and of these 5,177 were connected with the Church of England, with 897,967 scholars, 1,094 schools, with 226,582 scholars, connected with Protestant Dissenters, and 254 Roman Catholic schools, with 51,511 scholars. In Scotland there were 930 schools, with 100,658 scholars, connected with the Established Church; 425 schools, with 53,264 scholars, with the Free Church; 76 schools, with 8,421 scholars, connected with the Episcopal Church; and 40

Roman Catholic schools, with 6,031 scholars. The numbers do not quite agree with the preceding table, in consequence probably of the religious enumeration being less complete. The government expenditure for the year ending March 31, 1867, was, for expenses of administration 78,432*l.*; for schools of each denomination:—Church of England, 390,084*l.*; British and Foreign School Society, 66,461*l.*; Wesleyan, 32,135*l.*; Roman Catholic, 28,569*l.*; Parochial Union, 120*l.*; Church of Scotland, 51,312*l.*; Free Church of Scotland, 30,756*l.*; Episcopal Church of Scotland, 4,586*l.*; and Roman Catholic (Scotland), 2,747*l.* Total 385,202*l.*

79. EDUCATION, SCIENCE, AND ART.—Sums granted for such purposes in 1868-9:—

	£.
Learned Societies, Great Britain	11,800
Queen's Colleges, Ireland .	4,265
Belfast Theological Professors .	2,050
Universities, &c., Scotland .	17,949
Board of Manufactures . .	4,200
Public Education, Great Britain	842,554
Science and Art Department .	239,290
University of London . .	9,063
British Museum	99,380
National Gallery . . .	15,992
British Historical Portrait Gallery	1,800
Public Education, Ireland .	360,195
Queen's University, Ireland .	3,155
National Gallery, Ireland .	2,740
	£1,614,433

80. NATIONAL EDUCATION, IRELAND.—At the end of 1867 there were 6,520 schools in operation; the number of distinct individual children appearing on the rolls was 913,198, and the average number in daily attendance 321,515; an increase over 1866 of 67 schools, of 2,379 pupils on the rolls, and of 5,290 in the average daily attendance. Of the total number 106,277 were in Ulster, 96,552 in Munster, 73,093 in Leinster, and 45,683 in Connaught. The religious denominations of 912,745 pupils on the rolls were ascertained, and they were—of the Established Church, 66,146; Roman Catholics, 737,267, Presbyterians, 102,768, other persuasions 6,564; or 7·25 per cent. of the Established Church, 80 per cent. of Roman Catholics, 11·25 of Presbyterians, and 0·73 of other persuasions. Returns are given of 3,820 mixed schools. In 1039 schools under Protestant teachers, there were 115,864 Protestant children mixing with 29,481 Roman Catholics; in 2649 schools under Roman Catholic teachers, there were 28,814 Protestant children mixing with 333,565 Roman Catholics; and in 132 schools taught conjointly by Protestant and Roman Catholic teachers, there were 14,825 Protestant children mixing with 13,228 Roman Catholics. The salaries to teachers and monitors in the ordinary national schools amounted to 267,671*l.* The total amount expended was 370,504*l.*, of which 346,130*l.* was supplied by the Treasury. There were 21 farm schools under the management of the Board, which show a profit of 6,013*l.*, and 17 under local management, with 74 ordinary farm schools and school-gardens under local management, but in connection with the Board.

81. BRITISH MUSEUM.—The total expenditure on the British Museum in the year ending March 31, 1868, was 100,908*l.*, of which 19,639*l.* were expended on purchases and acquisitions, and of this 9,500*l.* were for printed books; 2,029*l.* for MSS.; 1,005*l.* for zoological specimens; 1,500*l.* for coins and medals; 1,694*l.* for Greek, Roman, Mediæval, Oriental, and British Antiquities; 1,191*l.* for prints and drawings; 699*l.* for minerals and meteorites; 797*l.* for fossils. Bookbinding, preparing specimens, &c., cost 10,249*l.*; printing catalogues, taking casts, &c., 1,850*l.* The salaries amounted to 51,194*l.*; the house expenses to 3,449*l.*; the general repairs and maintenance of buildings, with fittings and furniture for the articles, books, specimens, &c., cost 11,567*l.* For law expenses the sum is 74*l.* In the year 1867 there were 445,036 visitors to the general collection, 103,469 to the reading-room for purposes of study, 2,416 to the sculpture galleries, 2,792 to the print-room, 2,084 to the coin and medal-room, and 520 to the mausoleum and Cnidus galleries; a total of 556,312, an increase of 39,767 over those of 1867, and the largest number of any year since 1862. The greatest number of visitors were in June and December. The readers averaged 354 per day, each consulting an average of 12 volumes. The total income was 126,754*l.*, including a balance in hand, and 292*l.* received from the sale of the Museum publications, and a balance remained in hand of 25,846*l.*

82. VISITORS TO MUSEUMS, GALLERIES, &c.—

	1867.
National Gallery, Charing Cross .	823,426
South Kensington Museum, of whom 203,639 were in the evening .	646,516
National Portrait Gallery . .	26,649
Geological Museum, Jermyn Street	43,402
Edinburgh Museum of Science and Art.	274,031

2. *Intercommunication.*

84. POST OFFICE.—The Report for 1866 was not published until July, 1868. In the year there were delivered in England and Wales 30 letters to each person of the estimated population; in Scotland 22 to each person; and in Ireland 10 to each person; a total in round numbers of 750,000,000 letters, or 24 to each person. The number of book packets, pattern packets, and newspapers delivered by post in the United Kingdom amounted to 101,784,185, an increase of 3·29 per cent. over the preceding year. There were in the United Kingdom 3567 money-order offices. The money-orders issued amounted in the whole to 18,847,643*l.*, and the money-orders paid, 19,217,906*l.*

The Fourteenth Report of the Postmaster-General gives a tabular statement, which shows that at the close of 1867 there was one receptacle for letters for every 296 houses in England and Wales, one for every 252 houses in Scotland, and one for every 473 houses in

Ireland. During the year 1867 additional free deliveries were given to 434 places, at 161 places additional free deliveries were established, and at 217 places the boundaries of the free delivery were enlarged. The total number of post towns in England and Wales was, in 1866, 555; and in 1867, 559. Great improvements and accelerations were made during the year in the despatch of mails. The scale of postage, progressive by half-an-ounce through all its gradations, was extended to the correspondence between the United Kingdom and numerous foreign countries. The pattern post was greatly extended, and the fees on registered letters lowered. The postage has been reduced to many kingdoms on the Continent. In June, 1867, a new convention was signed, under which the total postage on a single letter passing between the United Kingdom and the United States was reduced from one shilling to sixpence; the transmission of book packets and patterns at a low rate of postage was sanctioned, and reduced rates of charge were established for correspondence sent in transit through either country. The improvements made in the London district were numerous, and included extension of time for posting letters for night mails to the country, the acceleration of correspondence by new arrangements with the district offices, additional collections of letters, by the opening of 19 new receiving offices, and the erection of 64 pillar letter boxes. The total number of receptacles for letters in the metropolitan district at the close of 1867 was:—Receiving offices, 469, of which number 417 were money order offices, and 405 were Post-office savings-banks; pillar letter-boxes, 423; wall letter boxes, 54; railway station boxes, 9. The service in many provincial towns has been placed upon a new and satisfactory footing. The increase in the number of letters conveyed by the Post-office during the year 1866, and again during the year 1867, was, as in previous years, much more than proportionate to the increase of population in all parts of the United Kingdom, and to the increase in the number of inhabited houses. In the United Kingdom the proportion of letters to population rose from 24 per head per annum in 1866 to 26 per head per annum in 1867; and the proportion of letters to inhabited houses rose from 135 letters to one house in 1865, to 141 letters to one house in 1866, and 144 letters to one house in 1867. The gross total of the articles conveyed by the Post-office in 1867 was, letters, 774,831,000; books, free and chargeable newspapers, samples and patterns, 102,273,301—in all, 877,104,301. The report states with respect to valentines, that in 1866 the number was estimated at 997,900, whilst in 1867 the number rose to 1,119,142. The estimated postage derived from the valentines passing through London was 9,354*l.* in 1866, and 11,242*l.* in 1867. Valentines having postage charged upon them to the amount of nearly 200*l.* in each year were refused by the persons to whom they were addressed. The number of registered letters passing through the General Post-office in 1867 numbered 1,964,980, an increase of 10·5 per cent. over 1866. These figures are exclusive of the letters containing coin, which are compulsorily registered in this department, and which numbered 28,000 in 1867. There has also been a corresponding increase in the number of registered letters passing through the post in the whole of the United Kingdom, which number amounted in 1867 to 2,619,570. The returned letters for 1867 were slightly in excess of the number for 1866, the total being, in 1866, 3,602,995; 1867, 3,618,888. At the end of 1867 the number of money-order offices amounted to 3,691, showing a large increase on the previous year of 124. The amount issued was 19,282,100*l.*, the amount paid 19,688,706*l.* The gross revenue from letters, books, packets, &c., in 1867, was from letters, &c., 4,376,044*l.*, money-order commissions, 172,085*l.*; and newspaper stamp produce, 120,085*l.*, the total revenue being 4,668,214*l.* The total cost of the Post-office service was 3,246,850*l.* The net revenue in 1866 was 1,397,986*l.*, against 1,421,364*l.* for 1867.

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84. Railway Traffic, Receipts and Expenditure.—In the year ending Dec. 31, 1866, the total number of passengers conveyed on railways in England and Wales had been 238,137,382, an increase of 21,441,744 over the number in 1865; in both cases exclusive of season and periodical ticket-holders, of whom there were 77,047 in 1866, and 63,997 in 1865; more than 11 journeys for each inhabitant. The number of miles travelled by trains was 117,313,154 in 1866, of which 60,211,931 were by passenger trains; in 1865 the passenger trains ran 58,359,587 miles, out of a total of 114,495,517 miles. The number of trains run was 4,485,864 in 1865, and 5,021,381 in 1866. The number of miles open at the end of 1866 was 9701; 450 miles having been opened in the year. Of general merchandise there were carried 32,430,891 tons in 1866, and 30,640,967 in 1865; of coal and other minerals, 71,873,964 tons in 1866, and 63,892,007 tons in 1865; about a ton and a half of general merchandise, and upwards of three tons of coal and other minerals for each inhabitant. The live stock carried was 1,813,151 cattle in 1866, a decrease from that of 1865 of 60,869 head, a consequence of the cattle disease; the number of sheep carried in 1866 was 7,180,145, as against 7,001,654 in 1865; the pigs in 1866 numbered 1,617,587, in 1865 they were 1,148,731; there were also 207,311 horses conveyed in 1866, a decrease from 1865 of 2,892; and 313,836 dogs, an increase of 1,670 over those of 1865. The total receipts in 1866 were 32,274,869*l.*, an increase of 2,108,558 over those of 1865. Of the receipts in 1866 there were 3,348,094*l.* derived from first-class passengers, 4,430,411*l.* from second-class, 4,913,485*l.* from third-class and parliamentary-train passengers, and 432,907*l.* from periodical ticket holders; 1,219,976*l.* were received for the carriage of passengers' luggage, parcels, carriages, horses, &c.; 408,524*l.* for the conveyance of mails;

522,278*l.* for the carriage of live stock; 5,962,241*l.* for that of coals and minerals; and 11,036,053*l.* for general merchandise; each item being in excess of the receipts of 1865.

In Scotland the total number of passengers in 1865 had been 21,995,528, in 1866 it was 23,082,369, with 20,567 periodical ticket holders, a decrease of 177 from the number in 1865, over seven and a half miles for each inhabitant. The number of miles travelled by train was 17,680,579 in 1866, an increase of 119,816 miles over 1865; the passenger trains running 7,619,016 miles, and the goods trains 10,061,563 miles in 1866, showing an increase over 1865 of 200,514 miles of passenger trains, and a decrease of 80,698 miles of goods trains. The number of miles open at the end of 1865 was 2244, an increase of only 44 miles over 1865. In 1866, of general merchandise there were carried 4,336,512 tons, a decrease of 150,523 tons from 1865, and 13,195,851 tons of coal and other minerals, a decrease also of 360,859 tons from the previous year. Of live stock there was a remarkable decrease in 1866 from that of 1865; the cattle conveyed numbered 345,430, a decrease of 143,332; sheep, 1,728,321, a decrease of 30,804; pigs, 82,230, a decrease of 6,158; horses, 14,790, a decrease of 2,688; dogs, 36,630, a decrease of 11,079. The total receipts for 1866 were 4,127,131*l.*, an increase of 140,390*l.* over that of 1865; of the income for 1866 there were 357,674*l.* from first-class passengers, 200,080*l.* from second, 803,666*l.* from third-class and parliamentary-train passengers, and 43,378*l.* from periodical ticket-holders. The receipts from goods and cattle traffic were 2,530,996*l.*, with 109,837*l.* from the carriage of passengers' luggage, parcels, &c.; and 81,560*l.* from the conveyance of mails; all the items being in excess of those of 1865, except a decrease of 6558*l.* on second-class passengers, and 11,131*l.* on live-stock. Three-fifths of the receipts arise from the goods traffic, and nearly the same proportion of the passenger receipts from third-class passengers.

In Ireland the total number of passengers in 1866 had been 13,074,017, a decrease of 99,632 from 1865, the decrease taking place entirely in the first and second-class passengers, while there was an increase of 336,437 in the third-class and parliamentary, with 12,613 periodical ticket-holders, an increase of 207 over 1865; the total gives at least two and a half journeys for each individual. The number of miles open at the end of 1866 was 1,969, an increase over 1865 of 71 miles; and the miles travelled by trains was 7,814,120 in 1866, against 7,470,847 in 1865, in each year fully two-thirds being passenger trains. The general merchandise carried in 1866 was 1,873,535 tons, or about the third of a ton for each individual, and an increase of 213,999 tons over 1865; the coal and minerals carried in 1866 was 413,629 tons, an increase of 56,560 tons over the previous year. In 1866 the live stock conveyed numbered 547,781 cattle, 568,358 sheep, 1,138,119 pigs, 27,332 horses, and 36,076 dogs, all in excess of 1865, except a decrease of 146 dogs. The total receipts were 1,762,354*l.* in 1866, an increase of 25,293*l.* over those of 1865. The receipts from passengers, 893,230*l.*, showed a decrease of 41,156*l.* from those of 1865, the decrease taking place in the first and second classes; from passengers' luggage, horses, and dogs 68,630*l.* was derived, an increase of 4,678*l.* over 1865; from the conveyance of mails 83,613*l.*, an increase from 1865 of 1,157*l.* The receipts from the carriage of general merchandise, minerals, and live stock in 1866 was 716,861*l.* an increase of 60,614*l.* over 1865, but still forming only two-fifths of the whole, while in Scotland it forms more than two-thirds, and in England considerably more than half. But Ireland is evidently making progress, the passenger and goods traffic alike testify to its assuming more of a business character.

The total length of railway open for traffic in the United Kingdom on Dec. 31, 1866, was 13,854 miles, of which 565 miles had been opened in the year. The total maintenance of the way had been 3,466,668*l.*, or 18·43 per cent.; the locomotive power 5,253,843*l.*, or 27·93 per cent.; repairs and renewals of carriages and waggons cost 1,539,332*l.*, or 8·18 per cent.; the traffic charges, coaching, and merchandise, 5,402,469*l.*, or 28·72 per cent.; rates and taxes, 757,407*l.*, or 4·02 per cent.; the government duty was 464,385*l.*, or 2·47 per cent.; compensation for personal injuries, &c., amounted to 306,257*l.*, or 1·63 per cent.; compensation for damage or loss of goods amounted to 178,706*l.*, or 0·95 per cent.; legal and parliamentary expenses amounted to 271,551*l.*, or 1·44 per cent.; and the miscellaneous working expenses, not included in the foregoing, were 1,171,155*l.*, or 6·22 per cent., making the total working expenses 18,811,673*l.*, which, on receipts of 38,164,354*l.*, is 49 per cent. An account of the rolling stock of the various companies shows that 8,125 locomotives were possessed by them on Dec. 31, 1866; 19,228 carriages for passengers; 7,276 other vehicles attached to passenger trains; and 242,941 waggons and other conveyances for live-stock, merchandise, and minerals. The capital authorized to be raised up to Dec. 31, 1866, was 620,564,406*l.*, of which 154,412,773*l.* was by loan, the rest by shares.

3. *Social Condition.*

85. SAVINGS BANKS.—The amount received by the Commissioners for Reducing the National Debt from Savings Banks and Friendly Societies in the year ending November 20, 1867, was 640,927*l.*; from trustees 682,097*l.*; transferred from Post Office Banks, 2,436*l.*; and on account of dividends and interest on stock, &c., 1,506,836*l.*; a total of 2,832,296*l.* There were paid by them—to trustees 1,548,234*l.*; transferred to Post Office Savings Banks, 176,995*l.*; incidental expenses, 447*l.*, leaving a balance on the year of 227,336*l.* The gross amount credited to Savings Banks, including interest, was 43,754,655*l.*

86. Post Office Savings Banks.—The return for 1867 shows that the total amount received in the year, including interest, was 4,643,906*l.* The total amount paid was 3,222,800*l.*; and warrants were issued for 16,549*l.*, but not paid at that date. The total computed capital amounted to 9,867,703*l.* The charges and expenses for the year amounted to 62,700*l.*

87. Military Savings Banks.—The accounts for the year ending March 31, 1867, show that 156,501*l.* had been deposited, and 174,990*l.* been withdrawn by separate depositors. On account of the Army Charitable Fund there had been 945*l.* received, and 2,658*l.* disbursed. The total number of accounts open was 17,898, and the amount deposited, including interest, was 289,199*l.*, showing a decrease of more than 50,000*l.*

88. Seamen's Savings Banks.—The amount received in the year ending Nov. 20, 1867, was 32,747*l.* 7*s.* 4*d.*, the balance in hand from the previous year was 47,415*l.* 13*s.* 1*d.*, and the interest received was 1,557*l.* 7*s.* 10*d.*, making a total of 81,720*l.* 8*s.* 3*d.* The repayments in the year had been 22,352*l.* 13*s.* 5*d.*, besides 8,044*l.* 4*s.* 0*d.* paid to depositors in the Temporary Deposit Bank at Liverpool, leaving a balance of 49,998*l.* 9*s.* 3*d.* due to 1,557 depositors.

89. Merchant Seamen's Fund.—The Merchant Seamen's account shows that sums amounting to 34,850*l.* were received in 1867 for wages and effects of 5,547 deceased seamen, and 24,269*l.* was paid to the representatives of 2,732 deceased seamen. The surplus and all future receipts from that source are now paid into the Exchequer. There were 49,140*l.* paid in pensions to 15,121 masters, seamen, their widows and children in the year, from a Parliamentary grant.

90. Loan Societies.—The returns of the number of these societies in England includes in 1867 returns from 787 societies, 48 fewer than the preceding return, of which about half are from the metropolitan district. The 787 societies had 473,733*l.* in borrowers' hands at the close of the year. Loans were made in the year to 159,625 persons. The gross profits, including 10,051*l.* received for forms of application and for inquiries made, are returned as amounting to 41,512*l.*, but there is some error in the accounts here, probably in the amount set down for interest. The expenses of management were 19,091*l.* There had been 1,341 summonses issued for the recovery of debts, amounting to 27,557*l.*; and 20,323*l.* had been recovered in the year. 2,282 distress warrants were issued in the year; the costs incurred amounted to 3,077*l.*, and 2,350*l.* were paid by borrowers or their sureties.

91. Co-operative Societies of Scotland.—Of these the Registrar states, that on December 31, 1866, there were 117, all of them "limited," but one. At that date the value of the property belonging to the societies amounted to 45,018*l.*, the stock belonging to them amounted to 86,379*l.*; and the profits derived in the year had been 43,122*l.* Twenty-four had no property, all had stock, and all but one had made a profit. The highest, the Bridgeton Old Victualling Baking Society, with "no property," had made a profit of 2,199*l.*

4. *Agriculture.*

92. Agricultural Statistics of Great Britain.—These have at length, after many endeavours to obtain them, been issued for 1866 and 1867. The returns for 1866 were, to some extent, incomplete, as all holdings under five acres were omitted; hill pastures were excluded, and some misconceptions were embodied in the returns of bare fallow. The result is that in England, in 1866, there were 7,365,170 acres under corn crops, and 7,399,347 acres in 1867; of these, in 1866, there were 3,190,431 of wheat, 1,877,387 of barley or bere, 1,503,990 of oats, 50,570 of rye, 492,586 of beans, and 314,206 of peas; in 1867, with a total under corn crops of 7,399,347 acres, there were 3,140,025 acres of wheat, 1,892,338 of barley or bere, 1,506,361 of oats, 42,675 of rye, 505,539 of beans, and 312,409 of peas. In Wales, in 1866, there was a total of 521,074 acres under corn, of which 113,862 were of wheat, 146,323 of barley or bere, 251,893 of oats, 2,452 of rye, 3,534 of beans, and 3,010 of peas; in 1867, with a total of of 521,404 under corn, there were 116,733 acres of wheat, 148,340 of barley or bere, 247,008 of oats, 3,124 of rye, 3,435 of beans, and 2,766 of peas. In Scotland, with a total of 1,366,540 acres under corn, there were 110,101 acres of wheat, 213,619 of barley or bere, 1,004,040 of oats, 7,055 of rye, 28,537 of beans, and 3,188 of peas; in 1867, with a total of 1,364,029 acres under corn, there were 111,118 acres of wheat, 218,486 of barley or bere, 997,120 of oats, 7,060 of rye, 27,824 of beans, and 2,915 of peas. In the Isle of Man and the Channel Islands, in 1866, with 32,449 acres under corn, there were 12,567 acres of wheat, 8,379 of barley or bere, 11,726 of oats, 49 of rye, 378 of beans, and 150 of peas; in 1867, with a total of 32,023 acres under corn, there were 11,141 acres of wheat, 8,148 of barley or bere, 12,099 of oats, 80 of rye, 304 of beans, and 253 of peas.

Of green crops in 1866 there were in England, 311,151 acres of potatoes, 1,610,610 of turnips and swedes, 254,081 of mangold, 15,598 of carrots, 159,539 of cabbage and rape, 408,933 of vetches, lucern, &c., making a total of 2,759,912 acres of green crops, exclusive of clover and grass; in 1867 there was a total of 2,691,734 acres, of which 289,611 were of potatoes, 1,621,123 of turnips and swedes, 253,937 of mangold, 14,722 of carrots, 128,863 of cabbage and rape, and 383,478 of vetches, lucern, &c. In 1866 there were 56,562 acres of hops, 760,979 of bare fallow or uncropped arable, 2,296,087 of clover and other artificial grasses, under ro-

tation, and 8,998,027 of permanent pasture and meadow, not broken up in rotation, but exclusive of heath or mountain land; in 1867 there were 64,273 acres of hops, 753,210 of fallow, 2,478,117 of clover, &c., and 9,545,675 of permanent meadow, &c., the increase on this item being probably owing to the addition of down-land, generally omitted in the return of 1866. In Wales, in 1866, with a total of 139,265 acres under green crops, there were 44,266 acres of potatoes, 62,442 of turnips and swedes, 3,864 of mangold, 295 of carrots, 1,329 of cabbage and rape, and 27,069 of vetches and lucern, and there were 14 acres of hops, 109,878 of fallow or uncultivated arable, 256,722 of clover, and 1,257,721 of permanent pasture and meadow; in 1867, there were 138,387 acres under green crops, of which 45,077 were of potatoes, 67,927 of turnips and swedes, 3,345 of mangold, 346 of carrots, 679 of cabbage, and 21,013 of vetches and lucern; and there were 7 acres of hops, 86,257 of bare fallow, 300,756 of clover, &c., under rotation, and 1,472,359 of permanent pasture and meadow. In Scotland, in 1866, there was a total of 663,257 acres under green crops, of which 143,426 acres were of potatoes, 478,990 of turnips and swedes, 852 of mangold, 916 of carrots, 5,075 of cabbage, and 33,998 of vetches and lucern; there were 2 acres of hops, 94,080 of fallow or uncultivated arable, 414,148 of clover, &c., under rotation, and 893,086 of permanent pasture and meadow; in 1867 the total of green crops was 668,042 acres; of which 157,529 acres were of potatoes, 484,800 of turnips and swedes, 844 of mangold, 855 of carrots, 4,150 of cabbage, &c., and 19,864 of vetches and lucern; and there were 4 acres of hops, 83,091 fallow or uncultivated, 1,211,101 of clover and artificial grasses, and 1,053,285 of permanent pasture and meadow not broken up. In the Isle of Man, Jersey, and Guernsey, in 1866, there were 20,399 acres under green crops, of which 6,347 acres were of potatoes, 9,305 of turnips and swedes, 972 of mangold, 1,471 of carrots, 315 of cabbage, &c., and 1,989 of vetches and lucern; there were no hops, but 11,281 of fallow, 29,400 of clover, &c., and 21,729 of permanent pasture; In 1867 with 21,387 acres of green crops, there were 6,852 of potatoes, 9,859 of turnips and swedes, 821 of mangold, 7,367 of carrots, 328 of cabbage, and 1,944 of vetches and lucern; no hops, 5,249 acres of fallow, 31,008 of clover, &c., and 28,155 of permanent pasture.

Of Cattle—there were in England, in 1866, a total of 3,307,034, of which 1,290,529 were cows and heifers in milk or in calf; 15,124,541 sheep; and 2,066,299 pigs; in 1867 the total number of cattle was 3,469,026, of which, 1,411,417 were milch cows and heifers, of the remainder only 920,107 were above two years of age; the sheep numbered 19,798,837, and the pigs, 2,548,755. In Wales, in 1866, the total number of cattle was 541,401 of which 222,546 were milch cows or in-calf heifers; there were 1,668,663 sheep, and 191,604 pigs; in 1867 there 544,538 cattle, of which 244,541 were cows or in-calf heifers; there were 2,227,161 sheep and 229,917 pigs. In Scotland, in 1866, there were 937,401 cattle, of whom 370,447 were milch-cows or heifers, 5,255,077 sheep, and 219,716 pigs; in 1867 the cattle numbered 979,470, of which the cows and heifers were 382,134; there were 6,893,603 sheep, and 188,307 pigs. In the Isle of Man, Jersey, and Guernsey, in 1866, there were 36,061 cattle, of which 15,182 were milch-cows or heifers; there were 57,685 sheep, and 22,687 pigs. In 1867 there were 36,061 cattle, of which 15,182 were milch-cows or heifers, 72,835 sheep, and 20,228 pigs. There is no return of horses.

The average size of farms in England is 67·7 acres; the largest being in Hertford, where the average is 125 acres, in Wilts, 122¼, and Oxford, 120 acres; the lowest average is 39 acres in Cornwall; in Wales, the average is 48·4 acres; the highest being 67 in Radnorshire; the lowest, 35, in Caernarvon. In Scotland, the average is 55·6 acres, the highest being 183·9 acres in Berwickshire, the lowest 10·8 acres in Sutherland. The total number of occupiers of land in 1867 in Great Britain was 469,452.

The chief results of the agriculture in 1868 were published by the Board of Trade on Sept. 19. According to this statement there had been 3,646,280 acres under wheat, an increase of 278,384 acres over 1867; 2,149,201 acres under barley, a decrease of 109,963 acres; 2,753,240 acres under oats, an increase of 2,753 acres; 539,554 acres under potatoes, an increase of 47,337 acres; and 64,488 acres under hops, an increase of 254 acres. The produce per acre was stated by other authorities as being above an average, except in potatoes and hops.

93. Agricultural Statistics of Ireland.—The annual returns for 1867 show a total decrease of acreage under crop of 54,287 acres, from the revised numbers of 1866; but the summary and the details do not agree. At p. 4 the acreage of the principal cereal crops is 5,394,000, beans and pease make it 5,407,358. At p. 16 the total acreage of 1867 amounts to 5,459,702, while the corrected returns for 1866 make the acreage 5,520,508, showing a decrease of 60,866 acres: the total of this table must include other crops not specified, probably vetches and carrots. The returns for 1867 show—

Crop.	Acres.	Increase.	Decrease.
Wheat . . .	261,034	..	38,156
Oats . . .	1,660,511	..	39,184
Barley . . .	171,001	20,708	..
Bere and Rye .	9,602	..	419
Beans and Peas	13,552	..	2,118
Potatoes . .	1,001,781	..	48,572
Turnips . .	335,728	18,530	..
Mangel Wurzel	18,739	..	1,343
Cabbage . .	24,018	..	12,513
Flax . . .	253,257	..	10,520
Hay . . .	1,658,335	56,912	..
	5,407,558	96,150	152,825

But though the acreage decreases, the produce per acre was larger in wheat, oats, bere,

potatoes, mangel wurzel, and hay; it was the same as the previous year in barley, and less in rye, turnips, cabbage, and flax. The produce of the year was 725,847 qrs. of wheat, 7,435,535 qrs. of oats, 742,487 qrs. of barley, 9,705 qrs. of bere, 19,231 qrs. of rye, 3,147,458 tons of potatoes, 3,909,600 tons of turnips, 238,737 tons of mangel wurzel, 226,185 tons of cabbage, 35,397 tons of flax, and 3,070,100 tons of hay. The stock in 1867 consisted of 3,724,267 cattle, sheep 4,550,148, pigs 1,365,583.

The report, up to July, 1868, has been published, and shows that the total area under all crop was 5,547,335 acres, being an increase of 87,633 acres over 1867 in cereal and green crops. The total acreage of cereals was 2,192,785 acres in 1868, compared with 2,115,700 in 1867, showing a net increase this year of 77,885 acres, after allowing for a decrease in beans and peas to the extent of 3,582 acres. The total area under green crops in 1868 was 1,456,307 acres. Last year it was 1,452,410, showing a net increase of 23,897 acres, after allowing for a decrease in turnips to the extent of 15,662 acres, and vetches and rape 3,638 acres. The increase in wheat amounts to 25,756 acres, oats 39,408, barley 15,199, potatoes 33,072 acres, and cabbage 8,753 acres. There were 33,462 acres more under meadow and clover, and 46,811 acres less under flax. The returns of live stock show a decrease compared with last year in all classes. The total numbers by this return are—horses, 522,864; cattle, 3,620,352; sheep, 4,822,444; pigs, 862,443; a decrease of 216 horses, 87,451 cattle, 13,075 sheep, and 372,748 pigs. The difference of value is very considerable. The whole life stock is estimated to be worth 34,098,742*l.*, being a decrease of 1,058,477*l.* compared with last year. The Collector-General concludes his report with a suggestion as to the expediency of improving the dwellings of the labouring classes, which would offer a further inducement to the agricultural population to remain in their own country.

5. *Other Subjects.*

94. Public Works and Buildings.—Sums granted for such objects in 1868-9 :—

	£.
British Embassy Houses: Constantinople, China, and Japan	64,920
Metropolitan Fire Brigade	10,000
Harbours of Refuge	116,675
Lighthouses Abroad	42,310
Royal Palaces	56,055
Public Buildings	117,905
Furniture of Public Offices	15,000
Royal Parks and Pleasure Gardens	137,524
Houses of Parliament	54,936
British Embassy Houses, Paris and Madrid	2,135
New Foreign Office	22,512
Public Offices, Site	42,760
Probate Court and Registries	13,764
Public Record Repository	24,000
National Gallery Enlargement	50,000
University of London, Buildings	25,000
Chapter House, Westminster	10,000
New Palace at Westminster, Acquisition of Land	29,400
Burlington House	55,000
Sheriff Court Houses	26,905
Rates for Government Property.	36,252
Post Office and Inland Revenue Buildings	89,470
Wellington Monument	4,200
Palmerston Monument	2,000
Public Buildings, Ireland	149,259
Queen's University, Ireland	7,000
Ulster Canal	5,300
Portland Harbour	8,500
	£1,218,782

An increase of 276,247*l.* over the preceding year.

95. Volunteers.—The annual return of Dec. 1867, shows in Great Britain 699 Light Horse Volunteers enrolled, 507 efficient and 192 non-efficient; 35,508 Artillery Volunteers, 30,611 efficient and 4,897 non-efficient; 5,511 Engineer Volunteers, 4,715 efficient and 796 non-efficient; 394 Mounted Rifles, 272 efficient and 122 non-efficient; and 145,752 Rifle Volunteers, 119,111 efficient and 26,641 non-efficient. The total is 187,864 enrolled; 155,216 efficient and 32,648 non-efficient.

IX.—JUDICIAL STATISTICS OF ENGLAND AND WALES FOR 1867.

The Annual Report for the year 1867 gives the following results :—

Under the head of *Police and Constabulary* there was in the year ending Sept. 29, 1867, an increase of the force of 345, the number being 24,073, composed thus :—

Borough constables	6,946
County constables	8,746
Metropolitan police	7,114
Police in dockyards, &c.	568
City of London police	699

The total cost was 1,920,505*l.* 12*s.* 2*d.*; the average cost per man 79*l.* 15*s.* 6*d.*, the average of the salaries or pay being 60*l.* 11*s.* 2*d.*

Criminal Classes.—In the year ending at Michaelmas, 1867, there was a decrease of 1,163 in the whole from the number of the previous year. There was an increase of 83 in the number of thieves and depredators, and a decrease of 116 receivers of stolen goods, of 295 prostitutes, of 202 suspected persons, and of 633 vagrants, or tramps. The following are the returns for the year :—

Characters.		Males.	Females.	Total.
Known thieves and depredators	under 16	2,927	1,017	3,944
Ditto	over 16	14,517	4,428	18,945
Receivers of stolen goods	under 16	22	9	31
Ditto	over 16	2,822	646	3,468
Prostitutes	under 16	..	1,320	1,320
Ditto	over 16	..	24,299	24,299
Suspected persons	under 16	2,920	1,166	4,086
Ditto	over 16	19,705	4,587	24,292
Vagrants and tramps	under 16	3,232	2,477	5,709
Ditto	over 16	19,405	7,444	26,849
Total	under 16	9,101	5,989	15,090
	over 16	56,449	41,404	97,853
	Total	65,550	47,393	112,943

There were also in local prisons (not including debtors and military prisoners) 17,205; in the convict prisons, 7,586; and in reformatories, 3,975; a total of 141,173; an increase in the year of 246. The number of houses of bad character continue to decrease; the total being 20,197, a decrease of 52 in the year.

During the year the police had information of 55,538 indictable crimes, and 28,132 persons had been apprehended, an increase of 4,989 crimes and 942 apprehensions. Of the 28,132 persons apprehended 21,496 were males and 6,636 females; of the total 5,816 males and 2,742 females were discharged; 93 males and 24 females were discharged on bail to appear if required; 1,406 males and 257 females were bailed to appear for trial; 38 males and 3 females were committed for want of sureties; and 14,133 males and 3,610 females were committed for trial. Of the crimes committed, 2,799 were offences against the person, including 135 murders; 5,911 were offences against property with violence, 43,731 offences against property without violence, 471 malicious offences against property, 1,382 forgery and offences against the currency, and 1,244 not included in the above classes, such as perjury, attempts to commit suicide (an offence still nearly half of the class, numbering 616), offences against the game laws, which only amount to 54, &c. Altogether, there were 18,971 persons to be tried, of whom 15,208 were males and 3,783 were females; of these 4,741 were acquitted or discharged, 23 were not tried or acquitted on the ground of insanity. The commitments for murder were 94, of whom 60 were acquitted, 7 were found insane, and 27 were sentenced to death, of whom 10 were executed; of the remainder the sentences were commuted to penal servitude, in each case, except of one female, for life. The total number of convictions was 14,207, of which 1,401 were for offences against the person (including those for murder), 1,514 offences against the person with violence, 10,227 for offences against the person without violence, 148 for malicious offences against property, 469 for forgery and offences against the currency, and 448 for other offences not included in the foregoing classes. Of the punishments (exclusive of those for murder), 3 were sentenced to penal servitude for life, 13 for more than 15 years, 58 for periods between 15 years and 10 years, and 1,772 for 10 years and under. No sentence to penal servitude is now for a less period than 5 years. Of imprisonments for shorter periods, varying from more than 2 years to 1 month or less, there were 11,801, and 270 offenders were sent to reformatories or industrial schools, while 263 were fined or discharged on sureties.

In the summary proceedings before magistrates there was a decrease of 7,105, the number for the year ending at Michaelmas, 1867, being 474,665, of whom 384,369 were males and 90,296 females, and of these, 280,196 males and 55,163 females were convicted.

Coroners' Inquests.—In 1867 there were 24,648 inquests, on 17,304 males and 7,344 females; a decrease of 192 males and 86 females. Verdicts of murder were found in 130 cases of males and 125 females; and of these 255 cases 149 were of infants of 1 year or under, a decrease of 17 from the number in 1866. There were 179 verdicts of manslaughter, 5 of justifiable homicide, 1,356 of suicide, 11,172 of accidental death, 208 were found to have died from injuries of which the causes were unknown, 2,702 of the verdicts were merely of found dead, in 322 cases the deaths were found to have arisen from excessive drinking, 115 from disease aggravated by neglect, 251 from want, cold, exposure, &c., and 8,682 from various other causes. Of the whole number, 4,113 were on infants under a year old, and of these 1,153 were illegitimate; 2,810 were above 1 year and under 7, and of these only 210 were illegitimate; 1,834 were between 7 and 16, 11,478 were between 16 and 60, 4,082 were 60 and above, and 331 of ages unknown. The total cost of the inquests was 76,605*l.* 17*s.* 8*d.*, an average of 3*l.* 2*s.* 2*d.* per inquest; a decrease of 7*d.* per inquest, and a decrease on the total amount of 168*l.*

Prisons.—The total number of commitments in the year 1867 had been 145,184, of whom 110,100 were males and 35,084 were females. These include 11,647 debtors on civil process, and 2,139 for military offences. Of recommitted prisoners there were 46,415, and an increase on the whole of 8,843. Excluding debtors and military offenders there were 131,398 commitments; of these, 32,724 males and 13,738 females could neither read nor write, 59,684 males and 20,067 females could read, or read and write imperfectly, 3,495 males and 430 females could read and write well, 195 males and 17 females had re-

ceived superior instruction, and of 807 males and 241 females the amount of instruction was not ascertained. These returns continue to show that ignorance promotes crime; in the classes unable to read and write or to read and write imperfectly there is the largest proportional increase of offenders.

The eleven *Convict Prisons* remain appropriated as last year. At the commencement of the present, which began on April 1, 1867, there were 7018 undergoing sentence; and in the course of the year there were received from county and borough prisons 2,220 males and 286 females; a total of 9,524 for the year. Of these 451 males were transported to Western Australia; 2 males were removed to county jails; 1 to reformatories or refuges; 30 males and 4 females to lunatic asylums; 170 males and 24 females were discharged on the termination of their sentences; 962 males and 172 females on tickets of leave; 1 male and 5 females on medical grounds; of 12 males the sentence was commuted; 8 males were pardoned; 81 males and 11 females died; 3 males committed suicide, and 1 escaped. A total of 1,722 males and 216 females disposed of in the year, leaving 6,529 males and 1057 females in confinement on March 31, 1868; a total of 7,586, an increase of 568 from the number at the beginning of the year. The total cost of these establishments for the year was 244,067*l.*

Reformatory Schools.—The number of these schools is now 50. At the end of the year at Michaelmas, 1866, there were 2,924 males and 711 females under detention; and there were committed during the year 1,083 males and 256 females, and 13 males and 9 females were received from other sources. Of the total there were 649 who had suffered some previous imprisonment, 1, a male, 10 times. Of the whole there were 684 who could neither read nor write; 544 who could do so only imperfectly; 93 who could read and write well; 1 had received superior instruction; and of 17 the education had not been ascertained. The total amount payable by the Treasury was 56,82½*l.*, and 2,893*l.* was recovered from the parents in diminution of the charges.

Industrial Schools.—At the Middlesex Industrial School at Feltham there were 510 boys under detention on September 30, 1866; and 264 were committed. Of the 264 there were 159 who could neither read nor write, 105 who could read and write imperfectly, and none who could read and write well. There were 68 discharged on completion of the term of detention, 123 by order of the Secretary of State, 88 were removed, and 3 died, leaving 489 under detention on September 29, 1867. The cost payable by the Treasury was 28*l.* 14*s.* 8¾*d.* per head, and 458*l.* was all that was recovered from parents. The other industrial schools certified under Act of Parliament are now 41, and at the commencement of the year had 949 boys and 289 girls under detention; during the year 791 boys and 321 girls were committed; 22 were received from reformatories. There were 19 deaths, and 361 left the school in various ways, leaving 1,471 boys and 521 girls remaining on September 29, 1867. The total costs for the year were 20,973*l.*

County Courts.—The number of plaints entered in 1867 was 942,161 (the report gives 942,181, but the tabulated detail shows the smaller number), a large increase over the preceding year, and 933,055 of them were for sums under 20*l.* The causes determined were 856 with a jury, and 541,704 without a jury. The judgments were in 310,377 cases for the plaintiff, 213,291 for plaintiff by consent or admission, and 524 by default. The total amount for which plaints were entered was 2,194,836*l.*, the amount awarded by judgments was 1,151,629*l.*; the costs amounted to 47,184*l.*; and the court fees to 311,835*l.* There were 159,784 executions issued for the sale of goods, and 4,523 sales made. There were 30,684 warrants of commitment issued, and 8,362 debtors were imprisoned. The number of plaints had increased over 1866 by 60,609, but of the total number about four-ninths were settled without coming into court. The causes tried increased by 54,395, and the fees by 23,382*l.*

Common Law Courts.—In 1867, in the Queen's Bench there were 209 remanets, and 1,089 new causes entered for trial; 140 remanets stood over, and the amount recovered was 47,725*l.* In the Common Pleas the number of remanets was 255, and 1,279 causes were entered for trial; 209 remanets stood over, and the amount recovered was 100,122*l.* In the Exchequer, the remanets were 14, and 8 causes had stood over; the number of new causes entered for trial was 1,027, and the amount recovered was 74,404*l.* On Circuit, there were 1,907 suits, and the sum recovered was 292,876*l.*

Court of Bankruptcy.—In the year ending Oct. 11, 1867, there had been 8,994 adjudications; of these 3,072 were in the London District Court, 1,857 in the County District Courts, and 4,065 in the County Courts. Of the total number, 5,207 were for debts not exceeding 300*l.*; and of these 3,867 were adjudicated upon by the County Courts. The total gross produce realized from bankrupts' effects was 588,620*l.* In 5,876 cases there was no dividend; in 1,649 there were dividends, but in 863 cases the dividend was under 2*s.* 6*d.* in the pound; in 445 it was less than 5*s.*, and in 40 there were 20*s.* paid. Of trust-deeds 6,912 were registered, an increase of 1,454 over 1866; and in the Masters' offices 5,011 bills were taxed, an increase of 333; the aggregate amount of the bills was 81,720*l.*, and the amount struck off was 9,785*l.* There were 6,902 orders of discharge granted, 345 suspended, and 100 refused. The total revenue of the Bankruptcy Court for the year was 145,414*l.*; a decrease of 4,425*l.*; the expenditure was 119,855*l.*; and an investment of 85,000*l.* was made in consols to the credit of the Chief Registrar.

High Court of Chancery.—In the Chancery Courts of the Lord Chancellor, the Lords-Justices, the Master of the Rolls, and the three Vice-Chancellors, there were 616 pleas, demurrers, motions, causes, appeals, &c., remaining for hearing at the beginning of the year, Nov. 1, 1866; 2,270 were entered between that date and Nov. 1, 1867; 2,099 were heard, 206 were otherwise disposed of, and 581 were remanets at the end of the year. The number of orders for winding-up companies was 110; the amount of calls made was 4,497,831*l.*; the amount of debts proved was 12,490,346*l.*; the amount paid to creditors 7,310,339*l.*; amount returned to contributories 21,870*l.*; and there remained pending 378 orders for winding-up companies.

Court for Divorce and Matrimonial Causes.—In 1867 there had been 321 petitions filed, of which 9 were for nullity of marriage, 224 for dissolutions of marriage, 70 for judicial separation, 15 for restitution of conjugal rights, 1 for declaratory act, and 2 in formâ pauperis. There were 9 applications for protection of property, and 90 for alimony. There were 159 trials, of which 127 were tried before the judge ordinary alone, and 32 with the assistance of a jury, all on oral evidence. The judgments given were 4 by the full court, 159 by the judge ordinary, and there was 1 appeal for a new trial, and 4 appeals to the full court. The fees received amounted to 2,512*l.*

Court of Probate.—There were 9,722 probates and 4,604 letters of administration granted in 1867 in the London Court, relating to property sworn to as not exceeding 54,111,975*l.* In the District Courts there were granted 15,957 probates and 5,947 letters of administration; the property sworn to as not exceeding 38,190,195*l.* The total amount of fees received was 125,234*l.*

Admiralty Court.—At the beginning of the year, there were 207 causes pending, and 594 were instituted during the year. The greatest number of new cases were for salvage (90), and damage by collision (241). 65 were for necessaries supplied to foreign ships, and 28 for wages. The amount for which all the causes were instituted was 922,030*l.* There were 186 judgments; 83 for plaintiff, 35 for defendant, with 68 decrees for causes by consent or in default.

Judicial Committee, and Appeals to the House of Lords.—There were 101 appeals to the Privy Council; of these 51 were heard and determined, and 3 were dismissed for non-prosecution. Of the cases heard, 28 of the judgments were affirmed, 6 varied, 17 reversed, and 230 (lodged since Jan. 1, 1860) remained. In the House of Lords there were 59 appeals and causes in error, and 40 remained for hearing from the previous year. Of these 17 were dismissed for want of prosecution, 8 were withdrawn, 41 judgments were delivered, in 25 cases the previous decision was affirmed, 2 affirmed with variation, 3 dismissed, 5 reversed, and 6 partly reversed. The number remaining to be heard was 42.

X.—JUDICIAL STATISTICS OF IRELAND FOR 1866.

Constabulary and Police.—A slight increase in the number took place in this year, the total rising from 13,327 to 13,355, chiefly in consequence of the introduction of the general constabulary at Belfast in lieu of the local force. The Dublin police numbered 1,067, for the counties and towns there were 11,906, and for the local force 382; the total giving 1 to every 418 of the population. The total cost for the year was 779,917*l.*, an increase of 13,320*l.* Of the total, 45,780*l.* 15*s.* 11*d.* was paid by Dublin towards its own police, which cost 82,054*l.*; the counties, &c., paid 13,916*l.* 7*s.* 9*d.*; the local force, paid from local sources, cost 11,440*l.* 16*s.* 11*d.*; the remainder was furnished by the Treasury out of the general taxes.

Criminal Classes.—The returns show this year a decrease in every class, amounting in the whole to 1,907. The same extraordinary disproportion of females continued to exist, as out of a total of 21,696, there were 11,676 females; or omitting the class exclusively female, there were 8,519 females to 10,020 males. Vagrants had decreased by 581. In Dublin the proportion of the criminal class to the population was one for every 125; for the whole of Ireland the proportion was 1 for every 266. The classification is as follows:—

Characters.		Males.	Females.	Total.
Known thieves and depredators	under 16	280	134	414
Ditto	over 16	1,240	991	2,231
Receivers of stolen goods	under 16	19	11	30
Ditto	over 16	532	497	1,029
Prostitutes	under 16	..	37	37
Ditto	over 16	..	3,120	3,120
Suspected persons	under 16	298	196	494
Ditto	over 16	1,502	1,261	2,763
Vagrants and tramps	under 16	1,548	1,679	3,227
Ditto	over 16	4,601	3,750	8,351
Total	under 16	2,145	2,057	4,202
	over 16	7,875	9,619	17,494
	Total	10,020	11,676	21,696

To these must be added 4,407 confined in local prisons, convict prisons, and reformatories.

The houses of bad character are specified thus:—

Houses of receivers of stolen goods	870
Resorts of thieves and prostitutes	1,026
Brothels, and houses of ill fame	593
Tramps' lodging-houses	3,552
	6,041

a decrease on three of the classes of 508, but brothels had increased by 24.

The total number of indictable crimes was 9,082; the largest number occurring in the quarter from January to March, 2,451; the smallest in the succeeding quarter, 2,094, from April to June. The number of persons apprehended for them was 6,252; of whom 4,677 were males, and 1,575 females; of these 1,310 males, and 613 females were committed for trial; 455 males, and 41 females were bailed; 1,612 males, and 200 females were bailed for trial; and 129 males, and 54 females were committed for want of sureties. There were 4,326 persons tried,—a decrease of 331 from the previous year,—3,461 males, and 865 females were convicted. Of the total, 1,882 were acquitted or not prosecuted, 26 were insane, and 2,418 were convicted. Of the total of commitments, 1,468 were for offences against the person, including 17 charges of murder, with only 4 convictions, 2 of the convicts were hung, and 2 commuted to penal servitude, the total number of convictions in this class was 803. The offences against property with violence, numbered 211, and there were 107 convictions; of offences against property without violence there were 1,429, and 901 convictions; of malicious offences against property there were 62, and 17 convictions, of forgery and offences against the currency there were 63, and 32 convictions; of other offences, not included in the foregoing classes there were 1,093, and 558 convictions. In this last class were a number of cases of treason-felony and other offences connected with Fenianism; the total number in all the classes, being 694. Of the punishments, exclusive of the 4 sentenced to death, there were 255 sentenced to various periods of penal servitude; 1,649 to various periods of imprisonment, 471 to whipping, fine, &c., and 43 were respited or pardoned. Of the total number tried, 1,365 males, and 169 females could read and write; 412 males, and 171 females could read only; 885 males, and 425 females could neither read nor write; and of 799 males, and 100 females the state could not be ascertained. The total cost of the proceedings paid from the Treasury was 32,643*l.*

Of *offences determined summarily*, the total number proceeded against was 236,835, of whom 192,364 were males, and 44,471 females; of these 158,999 males, and 33,131 females were convicted. Drunkenness furnished 82,194 of the offenders; common assaults, 31,877; offences against the Highway Acts, 51,190; and against the Stage and Hackney Carriage Act, 5,954; only 28 were imprisoned for more than six months, 12 were whipped, 120 sent to Reformatory Schools, and 149,982 were punished by fine. The total expense of the prosecutions at quarter-sessions, petty-sessions, and police courts, for the year was 23,904*l.*

Coroners' Inquests.—These numbered, in the year, 3,092, of whom 2,099 were males, and 993 females. Of these 107 were held on legitimate, and 174 on illegitimate children under 1 year old; in 37 cases the verdict was wilful murder, and there were 38 other similar verdicts. The accidental deaths numbered 1,009, and 230 from natural causes, including 92 from excessive drinking, and 91 from want and cold. The costs were 6,783*l.*

Prisons.—The total number of committals to prisons in the year was 29,428, of which 17,596 were of males, and 11,832 of females; but 621 were on civil process, and 327 for military or naval offences; leaving 28,480. The number in prison at the commencement of the year was 2,669. The total number in prison during the year was 32,280, of whom 19,427 were males, and 12,853 females, and 2,243 criminals, including lunatics, remained at the end of the year, with 100 confined on civil process. There were 12,161 wholly illiterate, 7,706 could read or write imperfectly, 8,091 could read and write well, 291 had superior instruction, and of 231 the education was not ascertained. 13,292 had been convicted before; 3,691 once, and 3,685 above ten times; in this last class 3,121 were women, and 564 men. The total expenses of the jails had been 84,595*l.*; the receipts were 2,644*l.* from the labour of the prisoners, 7,828*l.* from the Government, and 76,516*l.* from local rates and funds. In the Bridewells the number of commitments was 18,447, of which 13,931 were of males, and 4,516 females; of the total, 9,782 were for drunkenness. The total cost had been 6,365*l.*

Reformatory Schools.—To the nine schools there were 163 committals in the year, of which 142 were of Roman Catholics, and 21 of Protestants, 136 being boys, and 27 girls. Of the whole, 75 could neither read nor write, 66 could read or write imperfectly, 15 could read and write well, and 7 had had superior instruction. None had been previously imprisoned more than four months; and of the whole only 23 had been under parental control, having lost one or both parents by death or desertion, or having been in prison. Of the

total, 128 were to be detained for five years, and none for less than two years.

Civil Courts—Queen's Bench.—In the year there were 3,912 writs of summons and plaints filed, and 1,789 judgments (case and cognovit), the amount recovered on these was 458,743*l.* The number of causes entered for trial was 131, of which 33 were defended, 5 undefended, 3 made remanets by consent, 67 withdrawn, and 23 struck out; the amount recovered was 10,623*l.*

Common Pleas.—There were 3,852 writs of summons and plaints filed, and 2,499 judgments of various kinds; the amount recovered 179,140*l.* The number of causes entered for trial was 171, of which 82 were defended, 6 undefended, 3 made remanets, 30 withdrawn, and 44 struck out or settled; in 6 the venue was changed. The amount recovered was 19,388*l.*

Court of Exchequer.—The writs of summons and plaints filed numbered 3,888, and the judgments 1,952; the amount recovered 287,396*l.* The number of causes entered for trial was 177, of which 42 were defended, 3 were made remanets, and 132 struck out or disposed of in Nisi Prius.

Consolidated Nisi Prius.—The number of causes entered for trial was 128, of which 36 were defended, 14 undefended, 20 withdrawn, and 53 struck out or settled; referred to the Master 1, and transferred to after sittings 4; the amount recovered was 10,113*l.*

In the *Taxing Office*, 2,160 bills of costs were certified; the amount claimed was 52,813*l.*; the amount allowed 43,512*l.*; and the Law Fund duties and stamps were 540*l.*

On *Circuit.*—In the various Courts there were 309 causes entered for trial, of which 235 were defended, 16 undefended, 2 made remanets, 41 withdrawn, and 15 struck out or settled by consent; the amount recovered 24,462*l.* There were also appeals from Chairmen of Counties and Recorders, presentments and objections to them, claims for malicious injuries, &c., &c., to the amount of 956,854*l.* The amount recovered by verdicts was only 13,834*l.*

Court of Bankruptcy and Insolvency.—The total number of petitions presented in bankruptcy was 259; the gross amount of debts and liabilities stated was 1,721,723*l.*; the net sum proved 941,684*l.*; the gross amount of assets, as stated in balance-sheets, 709,307*l.*; the amount realized 447,929*l.*; the amount paid in dividends 227,406*l.*; the legal charges were 43,316*l.*; and the total allowance paid to official assignees 8,788*l.*

In *Local Courts* and *Courts of Conscience* (of which there are eight) there were 9,310 summonses issued, and 5,392 causes were heard. The decisions were 4,236 for the plaintiff, 548 for the defendant, and 1,180 were otherwise disposed of; the sum recovered 1,173*l.*, or little more than 5*s.* on each substantiated claim, and for this 655 executions were issued. The fees collected amounted to 652*l.*, more than half of the amount recovered.

Chancery.—Before the Lord Chancellor and the Master of the Rolls the cause petitions numbered 362; of these 163 were heard, 8 otherwise disposed of, and 81 awaited a hearing. There were also 332 petitions on various matters heard in Court (by the Lord Chancellor 61, by the Master of the Rolls 271). Altogether the sum of 1,046,868*l.* was received and 909,701*l.* disbursed; the fees received amounted to 5,527*l.*

Landed Estates Court.—At the commencement of the year there were 1,640 cases pending, and 512 others were presented, of which 404 were for sales of encumbered estates, and 46 for sales of unencumbered estates; besides cases for settling titles, for exchanges, for appointing new trustees, &c., &c. Sales had been made in 272 cases, the net rental amounting to 65,356*l.*, the purchase-money to 1,258,585*l.*, the amount ordered for payment 1,170,335*l.*, and the duty paid to the Court during the year 5,563*l.*

Court of Probate.—In the principal Court there were 1,043 probates and 686 administrations, and 467 caveats were entered. There were 131 causes, 18 trials by special jury, 17 by common jury, and 17 by the judge only. The fees received were 9,243*l.* and the amount of taxed costs 14,951*l.*; the amount of property sworn to was 6,307,880*l.* and the duty received 99,212*l.* In the *District* Registries there were 775 probates lodged, 517 letters of administration, and 124 letters of administration with will annexed; 194 caveats were entered, The fees received amounted to 5,225*l.*, and the duty received amounted to 33,500*l.*

Ecclesiastical Courts.—The proceedings were very limited. The whole number of causes from March 25 to Sept. 29, 1866, was but 43; of these 8 were for dilapidations, 3 were for sequestration, 20 for faculties for altering or rebuilding churches, the rest for tablets, vaults, &c.

XI.—LOCAL AND PERSONAL ACTS OF THE PARLIAMENT, 1868.

[31 and 32 Victoriæ.]

I. Numerical Abstract of the Private Bills of the Session of 1868 :—

New Bills introduced into the House	192
Bills read a first time	188
—— read a second time	183
—— read a third time	172
Royal assent	170

II. Comparative Classification of Bills for Ten Years, as given in the House of Commons List :—[There is a discrepancy of one between the Private Bill Table and the number of Bills actually passed.]

Bills Passed.	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868
Agriculture . .	4	4	6	4	4	2	3	10	4	1
Companies . .	12	8	9	5	7	8	6	11	4	4
Improvements in Towns, &c. .	25	44	49	43	47	66	84	91	85	66
Internal Communication. . .	117	136	173	166	170	225	267	223	101	78
Navigation, &c. .	18	12	12	10	15	29	22	28	15	9
Private Regulation, &c. .	10	17	19	9	8	17	10	15	13	13
Totals . .	186	221	268	237	251	347	392	378	222	171

The average number of Private Bills passed from 1859 to 1863 inclusive was nearly 233 ; the average number from 1864 to 1868 inclusive has been 310 ; the session of 1865 giving the highest number since 1846.

III. Abstract of Private Bills in the Session of 1868 :—

	Bills Introduced.	Passed.	Not Passed.
I. Agriculture	3	1	2
II. Companies	4	4	—
III. Improvements in Towns and Districts :—			
1. General Improvements	15	12	3
2. Water and Gas	44	38	6
3. Markets, Bridges, &c.	9	8	1
4. Municipal Regulation, &c.	8	8	—
IV. Internal Communication :—			
1. Roads	5	3	2
2. Railways	81	75	6
V. Navigation :—			
Harbours, Piers, and Docks	11	9	2
VI. Miscellaneous	2	2	—
VII. Private Regulation	11	11	—
Totals	193	171	22

Several Acts hitherto included in the collection of Public General Statutes will now be found among the Local and Personal Acts: such

are those for the Confirmation of Provisional Orders under the Local Government Act, the Land Drainage Act, the Drainage and Improvements of Lands (Ireland) Act, the General Police and Improvement (Scotland) Act, the Public Health (Scotland) Act, and the Poor Law Amendment Act; also the annual Inclosure Acts. Although technically public, they are purely of a local character. They number 22, which are marked by a P, and they are not included in the Private Bill table.

I. AGRICULTURE :—

Inclosure:—**P.** 31. To authorize the inclosure of certain lands in pursuance of a report of the Inclosure Commissioners for England and Wales.

58. To incorporate the Humber Conservancy Commissioners, and to make provision for a lease to them of foreshores of the Humber and the estuary thereof between the confluence into the same of the rivers Ouse and Trent and the sea, and to amend the enactments relating to the Commissioners.

P. 82. To authorize the inclosure of certain lands in pursuance of a special report of the Inclosure Commissioners for England and Wales.

P. 83. To confirm a provisional order under the Drainage Act, 1861.

P. 151. To confirm a provisional order under the Drainage and Improvement of Lands (Ireland) Act, 1863, and the Acts amending the same.

P. 156. To confirm a provisional order under the Land Drainage Act, 1861.

P. 157. To confirm a provisional order under the Drainage and Improvement of Lands (Ireland) Act, 1863, and the Acts amending the same.

P. 158. To confirm a provisional order under the Drainage and Improvement of Lands (Ireland) Act, and the Acts amending the same.

II. COMPANIES :—

30. To authorize the City of Dublin Steam Packet Company to make further arrangements for the investment of their contingency fund.

148. To make alterations in the deed of settlement of the Norwich Union Life Insurance Society.

165. For enabling the Star Life Assurance Society to sue and be sued in their own name.

175. To alter and amend the Act relating to the Towns Drainage and Sewage Utilization Company.

III. IMPROVEMENTS OF TOWNS AND DISTRICTS :—

1. *General Improvements*:—7. To enable the Metropolitan Board of Works to make improvements in the parish of St. Marylebone, in Middlesex, by forming a new street in lieu of Stingo Lane from the Marylebone Road to Upper York Street.

24. For empowering the corporation of the borough of Leicester to execute works for prevention of floods on the river Soar and other waters within the borough, and additional sewerage and drainage works, to make new streets and improvements, to establish a vegetable market, and to make arrangements with the Visitors of the Leicestershire and Rutland Lunatic Asylum, and for establishing sanitary and other regulations for the borough.

27. To enable the Local Board of Health for the district of Leamington Priors in Warwickshire, to purchase the property of the Leamington Royal Pump-Room Company (Limited) at Leamington Priors, and to maintain a pump-room and baths and public gardens and pleasure

grounds in Leamington Priors for the use and enjoyment of the inhabitants thereof.

89. For enlarging and improving the Court-houses and public buildings of the city of Glasgow, and erecting additional court-houses, halls, and buildings.

104. For authorizing the corporation of the borough of Barrow-in-Furness to supply with gas and water the borough and adjacent districts; to purchase the undertaking of the Furness Gas and Water Company; for defining and extending the powers of the corporation in relation to the improvement of the borough, and to police, and other matters of local government.

110. For the improvement of the township and district of New Kilmainham, in the barony of Upper Cross and county of Dublin.

111. For altering the streets in communication with the Embankment on the north side of the Thames; for giving effect to an arrangement with the South Eastern Railway Company with respect to the pier at Hungerford, and to an arrangement with the Metropolitan District Railway Company; and for amending some of the provisions of the Acts relating to the Embankment on the south side of the Thames.

112. To authorize the provost, magistrates, and town council of the royal burgh of Dundee to construct a sea wall, so as to enclose a portion of the alveus of the Frith of Tay opposite to the burgh, and to form an esplanade and a road or street on and within such sea-wall.

127. To enable the mayor, aldermen, and burgesses of the borough of Halifax to construct new works in extension of their waterworks; to extend their limits of supply; to acquire the Manufacturers' Hall; and to improve the borough of Halifax.

128. For enabling the corporation of the borough of Portsmouth to construct a new wharf or quay in the Camber; and for extending their powers to levy rates and dues.

129. For authorizing the Local Board for the district of St. Mary Church, in Devonshire, to supply their district with gas, to erect a town hall and other buildings, and to raise moneys.

140. For authorizing the mayor, aldermen, and burgesses of the borough of Bradford to make and maintain additional waterworks, and for making additional provision for improvement of the borough.

2. *Water and Gas*:—3. To make further provision for lighting with gas the town and parish of Loughborough, in Leicestershire, and to incorporate the Loughborough Gas and Coke Company.

5. To empower the Grand Junction Waterworks Company to raise further money, and to acquire additional land.

13. To authorize the company of proprietors of the Lewes Waterworks to raise more money.

16. For enabling the Local Board of Health for the district of Loughborough, in Leicestershire, to construct and maintain waterworks and supply water within the district; and to hold and regulate fairs and markets.

20. To authorize the Brompton, Chatham, Gillingham, and Rochester Waterworks Company to raise further capital.

23. For incorporating the Hythe and Sandgate Gas and Coke Company (Limited), and defining the limits of supply of gas by them, and regulating their capital.

28. For supplying with water the parishes, townships, and places of Slough, Upton-cum-Chalvey, Stoke Pogis, Langley, Datchet, and Farnham Royal, in Buckinghamshire.

29. To authorize the borough of Portsmouth Waterworks Company to make and maintain works in connexion with their present waterworks, and to raise more money.

32. To dissolve and re-incorporate the Cork Gas Consumers Company, Limited, and to provide for lighting the city of Cork with gas.

34. For improving the supply of water to the borough of Haverfordwest, for facilitating the recovery of market and other tolls and dues leviable in the borough, and for improving the recreation ground of the borough.

35. To authorize the Farnworth and Kearsley Gas Company to raise additional capital.

40. For enabling the Brentford Gas Company to raise additional capital; to construct new works; to vary and extend the limits of supply.

41. To authorize the Burslem and Tunstall Gas Company to raise further capital.

42. To incorporate the Clevedon Gas Company, and to make further provision for lighting with gas the parish of Clevedon, and certain parishes and places in the neighbourhood thereof, in Somersetshire.

45. For authorizing the Leeds New Gas Company to raise further money, and acquire additional lands.

48. For dissolving and re-incorporating the proprietors of the Yeadon and Guiseley Gaslight and Coke Company.

56. To incorporate the Ystrad Gas and Water Company, Limited, and to make provisions for the supply of gas and water in the parish of Ystradyfodwg, in Glamorganshire.

61. To amend and enlarge the provisions of the Reading Waterworks Act, 1851; to make further and better provision for supplying the town of Reading and the adjoining districts with water.

66. For incorporating and granting certain powers to the Peterborough Gas Company.

72. For enabling the Sunderland and South Shields Water Company to extend their works and their supply of water, and to raise additional capital.

74. For dissolving the Calverley Gas Company (Limited) and the Horsforth Gas Company, and incorporating a company for supplying with gas certain parts of the parishes of Calverley, Guiseley, and Addle, in the West Riding of York.

76. For better supplying with gas the city of Chichester and adjoining places.

77. To incorporate the Merthyr Tydvil Gas Company, and to confer upon them powers and make provisions for more effectually supplying with gas the town of Merthyr Tydvil and its neighbourhood.

78. For better supplying with water the parishes of Topsham, Clyst Saint George, Woodbury, and Lympstone, in Devonshire.

79. To amend and enlarge the provisions of the Warrington Waterworks Act, 1855; to extend the limits of the company for the supply of water; to make further and better provision for supplying Warrington and the adjoining districts with water.

81. To enable the Local Board of Health in and for the district of the borough of Reading to acquire the undertaking of the Reading Waterworks Company.

87. For authorizing the Morley Gas Company to raise further money.

92. For incorporating and granting other powers to the Worthing Gaslight and Coke Company.

94. To authorize and incorporate commissioners to supply with gas

the town of Dundee and districts and places adjacent, and to transfer to them the gasworks of the Dundee Gaslight Company and the Dundee New Gaslight Company.

95. For supplying with water Ruthin and places adjacent in Denbighshire.

103. For granting powers to the proprietors of the Windsor and Eton Waterworks.

106. For consolidating the Acts relating to the Gaslight and Coke Company, for regulating their capital, and for authorizing them to erect new gasworks, and to construct other works in connexion therewith, and to raise further moneys.

119. For transferring the waterworks of the Dartford Local Board of Health to the Company of Proprietors of the Kent Waterworks Company.

125. To amend the Metropolis Gas Act, 1860, and to make further provision for regulating the supply of gas to the city of London.

126. For incorporating the Eastbourne Gas Company, and for conferring upon them further powers for the supply of gas to the town and parish of Eastbourne and the parish of Willingdon, in Sussex.

131. To extend the limits within which the Staffordshire Potteries Waterworks Company may supply water, and to empower them to construct additional works, and to raise additional capital.

143. For conferring further powers upon the Derby Waterworks Company.

133. For incorporating a company for supplying with gas the parish of Llangonoyd and other places in Glamorganshire.

3. *Markets, Public Buildings, &c.*:—17. For the altering, widening, and rebuilding a bridge across the river Severn at Stourport, in Worcestershire, and for making further provisions with respect to the said bridge.

44. For making and maintaining a market in the parish of St. Mary, Lambeth, in Surrey.

60. To empower the corporation of Reading to alter and improve or rebuild Caversham Bridge, in Berkshire and Oxfordshire.

67. To authorize the corporation of Chichester to remove the present cattle market, and to provide a new cattle market.

75. For empowering the Local Board for the district of Wolborough, in Devonshire, to acquire market and fair rights and tolls, and to establish and hold markets and fairs.

90. To amend the Itchen Floating Bridge Act, 1863.

130. To amalgamate the Court of Record for the Hundred of Salford, in Lancashire, and the Court of Record for the trial of civil actions within the city of Manchester, and to constitute the said amalgamated court the Court of Record for the Hundred of Salford, with extended powers, and to regulate the practice and procedure therein.

168. For making and maintaining a market in the borough of Lambeth, in Surrey.

4. *Municipal Regulations*:—**P.** 10. To confirm certain provisional orders under the Local Government Act, 1858, relating to the districts of Workington, Walton-on-the-Hill, West Derby, Eton, Llanelly, Oxenhope and Stanbury, and Keighley, and for other purposes relative to certain districts under the said Act.

P. 11. To confirm certain provisional orders under the General Police and Improvement (Scotland) Act, 1862, relating to the burghs of Perth and Brechin.

P. 12. To confirm a provisional order under the General Police and Improvement (Scotland) Act, 1862, relating to the burgh of Broughty Ferry.

15. To provide for the finding and maintaining of one chaplain in lieu of two in the parish of St. Saviour, Southwark.

18. For facilitating arrangements with respect to the new parish of St. Luke, King's Cross, and other new parishes and districts, with a view to better provision for the cure of souls within the original limits of the parish of St. Pancras in Middlesex.

22. For authorizing the purchase by the Corporation of Lincoln of certain common rights, and the diversion of a road in Canwick Common, and the sale of portions of the said common.

36. To extend the limits of the Act for appointing a stipendiary justice of the peace for the parish of Merthyr Tidvil and adjoining places.

59. For the establishment of a united constabulary force in and for the University and city of Oxford.

P. 84. To confirm certain provisional orders under the Local Government Act, 1858, relating to the districts of Southampton, Bradford, Whitchurch and Doddington, Royton, Kendal, and Sunderland.

P. 85. To confirm a certain provisional order under the Local Government Act, 1858, relating to the district of Tormoham (Devonshire).

P. 86. To confirm certain provisional orders under the Local Government Act, 1858, relating to the districts of Malvern, Cowpen, Bristol, Sheffield, Margate, Bognor, and Otley; and for other purposes relative to certain districts under the said Act.

117. To separate for certain purposes portions of the borough of Belfast from Downshire, and for other purposes relating to the improvement and regulation of the borough.

146. For making the Acts of Parliament relating to the Ecclesiastical Commission applicable to the reputed parishes of St. Leonard and St. Mary Magdalen in the diocese of Chichester.

P. 150. To confirm a provisional order made by the Poor Law Board under the Poor Law Amendment Act, 1867, with reference to the city of Salisbury.

P. 152. To confirm a certain provisional order under the Local Government Act, 1858, relating to the district of Tunbridge Wells.

P. 153. To confirm certain provisional orders under the Local Government Act, 1858, relating to the districts of Harrogate, Layton-with-Warbrick, Bury, Lower Brixham, Hexham, Tipton, Gainsborough, Worthing, Aberystwith, Cockermouth, Burnham, Wednesbury, Burton-upon-Trent, Hornsey, and Keswick, and for other purposes relative to certain districts under the said Act.

P. 155. To confirm a provisional order under the Public Health (Scotland) Act, 1867, relating to the burgh of Tain.

160. For the better ecclesiastical regulation of the parish of St. Pancras in the diocese of London.

IV. Internal Communication :—

1. *Roads and Subways* :—8. To authorize the construction of a subway under the Thames from Tower Hill to the opposite side of the river.

P. 80. To make provision respecting the use of subways constructed by the Metropolitan Board of Works in the metropolis.

167. For making Street Tramways in Liverpool.

179. To extend and amend the borrowing powers of the Belgravia Road Company.

2. *Railways.*—Of the 75 Acts we give an abridged notice, indicating what appear to be new lines, or extension of lines, by printing them in italic.

1. Burry Port and Gwendreath Valley; for further powers.
2. Devon Valley; for diversion of line, and alteration of levels.
4. North London; for additional powers.
6. Newquay and Cornwall Junction; for extension of time, and for further powers.
14. Buckfastleigh, Totnes, and South Devon; for extension of time.
19. Dingwall and Skye; for power to make deviations.
21. Carnarvon and Llanberis, and the London and North Western; for further powers.
26. Chester and West Cheshire Junction; for further powers.
33. Cork, Blackrock, and Passage; for further powers.
37. Knighton, Central Wales, and Central Wales Extension; to take a lease of the Vale of Towy Railway jointly with the Llanelly Railway and Dock Company.
38. Knighton, Central Wales, and Central Wales Extension; for vesting them in the London and North Western Railway Company.
39. Glasgow and South Western; for extension of time.
43. Midland; for raising further capital.
49. *Midland and London and North Western;* for the construction of works in connection with their *Ashby and Nuneaton* Railway.
50. North and South Western Junction; for powers to make a deviation and to raise money.
51. Uxbridge and Rickmansworth; for extension of time.
52. Acton and Brentford; for extension of time.
53. *Great Northern;* for a new road in the town of *Leeds.*
54. Great Western; to confirm the issue of stocks and shares in payment of dividends.
55. West Riding and Grimsby; to repeal.
62. The Wexford branch and the Kingstown Connecting branch of the Dublin, Wicklow, and Wexford Railway; for extension of time.
63. North British and Edinburgh and Glasgow (Bridge of Forth); for abandonment of portions and extension of time.
64. Lancashire and Yorkshire (Ripponden and Stainland Branches, &c.) for extension of time.
65. Bristol and Exeter; for authorizing the abandonment of the Tiverton and North Devon Railway, and for extending the time for making the Brean Railway.
68. Downpatrick, Dundrum, and Newcastle; to amend.
69. London and South Western; for extension of time.
71. Ilfracombe; for the abandonment and dissolution of the company.
73. Potteries and Shrewsbury and North Wales; to abandon a portion and to make a substituted line.
88. Waterford and Limerick; to raise additional capital.
91. Stourbridge; to extend the powers.
93. Clonmel, Lismore, and Dungarvan; for extension of time.
97. Barry; for extension of time.
98. Somerset and Dorset; for a tramway from Glastonbury to Street.
99. Teign Valley Railway; for a deviation.
100. *Wycombe to Great Marlow, Buckinghamshire;* a branch of the Great Western.
101. Tottenham and Hampstead Junction; to raise further moneys.
102. Abergavenny and Monmouth; for extension of time.
105. Caledonian; to abandon portions of proposed branches, and to raise money.

107. Kington and Eardisley; to abandon portions, to make deviations, and to use a portion of Leominster and Kington Line.
108. Metropolitan District; for further powers.
109. Metropolitan; for a junction line in the City, and for extension of time.
114. Lancashire and Yorkshire and Lancashire Union; for further powers.
115. Lancashire Union; for abandonment of a portion, and for extension of time.
116. Wolverhampton and Walsall; for further powers.
118. London and North Western; for additional powers.
120. London, Blackwall, and Millwall Extension; for extension of time.
121. St. Ives and West Cornwall Junction; for further powers.
122. Holywell; to relinquish the authorized line, and to substitute other lines.
123. South Eastern and London, Chatham, and Dover (London, Lewes, and Brighton); for abandonment.
134. London, Brighton, and South Coast; for permission to abandon certain works.
136. *Greenock and Ayrshire;* to make and maintain certain railways and works.
137. Pontypool, Caerleon, and Newport; for extension of powers.
139. North British; to abandon certain proposed railways, and for extension of time.
141. Waterford and Kilkenny; to change the name, and give further powers.
142. Brecon and Merthyr Tydvil Junction; for suspending legal proceedings, and other purposes.
144. Athenry and Ennis Junction; for making arrangements with other companies.
145. Great Western; for further powers.
149. Metropolitan and St. John's Wood; for further powers.
159. Fareham and Netley; for extension of time, and revival of powers.
161. Mersey; for extension of time.
162. Chichester and Midhurst; for the abandonment.
163. East London; for further powers.
164. Great Eastern; to alter certain powers of appointing directors, and for extension of time.
166. Belfast Central; to abandon portions, and construct others.
169. Waterloo and Whitehall; to extend the powers.
170. Bishop Stortford; for vesting the possession in the Great Eastern Company.
171. *Weedon and Daventry;* to incorporate a company.
172. South Eastern; for granting powers.
174. Devon and Cornwall; to alter the lines and levels of parts of their railways.
176. Cork and Kinsale Junction; for the more effectual provision for the working.
177. Cambrian; for fusing all the revenues, and to confer rights of voting on preference shareholders.
178. Bristol and North Somerset; to deviate from the authorized line at Bristol.
180. Cork and Macroon (direct); for further powers.
181. *Isle of Wight* to connect *Newport and Cowes* with *Sandown, Ryde, and Ventnor.*
182. Rathkeale and Newcastle Junction; for raising money.

V. NAVIGATION:—

1. *Harbours, Piers, Docks:*—25. For enabling the Company of Proprietors of the undertaking for recovering and preserving the navigation of the river Dee to raise further moneys.

P. 46. For confirming certain provisional orders made by the Board of Trade under the General Pier and Harbour Act, 1861, relating to Brightlingsea, Clevedon, Morecambe, Mousehole, Instow, Saltburn-by-the Sea, and Southport; and for amending the General Pier and Harbour Act, 1861.

P. 47. For confirming certain provisional orders made by the Board of Trade under the General Pier and Harbour Act, 1861, relating to Carlingford Lough, Elgin and Lossiemouth, Greenock, Hunstanton, Tenby, and Torquay.

57. For mending the provisions of the Alexandra (Newport) Dock Act, 1865, with respect to the borrowing powers of the Alexandra Newport) Dock Company.

70. For altering and amending the Maryport Improvement and Harbour Act, 1866, and for authorizing new works and extending the powers of the trustees.

96. To authorize the Commissioners for Improving the Port and Harbour of Waterford to construct a dry dock and road, and other works connected therewith respectively.

124. To authorize the trustees of the Clyde Navigation to construct a Graving Dock, Quays or Wharf, and other works at the harbour of Glasgow, and to borrow additional money.

132. For extending the time allowed for the completion by the Llanelly Harbour and Burry Navigation Commissioners of certain works.

138. For improving and maintaining the harbour of Aberdeen.

147. To extend the time for the purchase of lands and completion of works of the Ardmore Harbour; and to confer further powers on the Ardmore Harbour Company.

P. 154. To make better provision for the preservation and improvement of the river Lee and its tributaries.

173. To provide for the closing of the Wey and Arun Junction Canal, and the sale of the site thereof.

2. *Fishery*:—**P.** 9. To confirm certain orders made by the Board of Trade under the Oyster and Mussel Fisheries Act, 1866, relating to the rivers Blackwater (Essex) and Hamble.

VI. Miscellaneous:—

135. To enable the Metropolitan Board of Works to embank the river Thames between the Royal Hospital at Chelsea and Battersea Bridge in Middlesex, and to make a roadway and other works connected therewith.

113. For repealing the Gun Barrel Proof Act, 1855, and for making other provisions in lieu thereof; and for altering the constitution of the guardians of the Birmingham proof house; and for better ensuring the due proof of gun barrels.

Private Acts.—Of the eleven Private Acts, two relate to the management of charities in Aberdeen; two are for the naturalization of aliens; one is for rendering valid a patent; the other six relate to the settlement of estates.

XII.—ARCHITECTURE AND PUBLIC IMPROVEMENTS.

1. General Progress:—Art and Public Monuments.

Months come and go, and during their progress, little seems to be accomplished. Years pass swiftly. The year ends, and the work that was talked of at its commencement as imminent, is still at its close spoken of as about to be performed. The building that then seemed to be drawing near a conclusion, seems to be drawing near a conclusion still. But we have only to glance behind us, and we see that progress has been made. Each month and year has left its mark:

> "——many strokes, though with a little axe,
> Hew down and fell the hardest-timbered oak."

The work of architectural transformation is undeviating. We need but look back a dozen years to see how far we have advanced. From the capital to the village there has been change. Our streets present quite another aspect. Never before were there so many new buildings erected in the same period, and never before was the bulk of the new buildings of so expensive a description. Public buildings, municipal buildings, churches, chapels, warehouses, offices, shops, are larger, costlier, more solid in structure, built of richer materials. The period of which we are in the midst, will leave for centuries its mark on the land. The buildings will remain: what will be the story they will tell?

In every previous age, and in every country in which great works were executed, the buildings had a special, well-marked character. Greek and Roman architecture, the architecture of the 13th or 14th century, of Italy or of Germany, of the Romanesque, or the Renaissance, had each so distinct a quality, was so evidently the product of the country and the people, and of the circumstances of the time, that the very name brings before the mind a definite image. The architecture may have been derived from another nation, but it bears on its front the unmistakeable stamp of its own period and country. In our time it is otherwise. With the extraordinary opportunities afforded to our architects, with the almost unlimited resources laid open by the discoveries of science and the progress of the mechanical arts, we are content to be copyists. Our architecture, as an art, has no originality, no relation to the time, no coherence of thought, no specific adaptation to its purpose. Our new buildings, whatever their object, are, as to their appearance, a matter of chance. The architect recognizes no special fitness, and it is the merest cast of a die whether an edifice that is to cover acres of ground and to be constructed at a cost of millions of money, that as regards magnitude, situation, object, will be among the chief buildings in existence, shall present the appearance of an overgrown cathedral, a Flemish town-hall, or, as appears likely to be the case with our Law Courts, a 13th century convent. Thirty years ago we should perhaps have made it a Greek temple. Fashions change, but habits remain. We have got beyond Paganism. We have, in architecture at least, become good Christians,

and are in all the faith and enlightenment of the pious middle ages. But in practice we are copyists still.

For an age of progress, our advance in architecture seems a little crab-wise. In one respect, however, we do seem to be going forward. In planning our buildings we are beginning to admit the doctrine of fitness; to acknowledge that a building ought to be designed with regard to its purpose; that a building, as a building, ought to serve the end for which it is erected in the most perfect manner possible. In time we shall perhaps come to see that the style, as style, is subsidiary, but consequent: a thing that ought to grow out of the primary intention and be modified by the materials, site, and surrounding circumstances.

Some progress has been made with our national buildings. The exterior of the Houses of Parliament may be regarded as having been completed by the construction of the covered way, or Cloister, as it is somewhat affectedly termed, on the east side of Palace Yard, and which will form a passage for members from the House to the Thames Embankment and railway station — when those are completed. Palace Yard itself has been levelled and enclosed with an ornamental railing, and the first of the statues of statesmen erected. None of the new work seems to have found much favour, and the statue, it is reported, is to be removed. Yet though the cloister does not fit well on to the building, and the railing is a little overdone, and the statue does not remind one of Phidias, it must, nevertheless, be admitted that the whole now looks finished, and finished with the air of splendour that belongs to a palace.

But now that the exterior is completed—completed, that is, for the time, when the Law Courts are removed, the question as to what is to be done with that side of the House will have to be reconsidered,—the remodelling of an important part of the interior becomes urgent. The House of Commons is too small for the members. The House consists of 658 members: in the present place of meeting there are seats for 428. When designing the Houses of Parliament, in all that enormous space, room could only be found for something less than two-thirds of the members of the House of Commons; and the building erected, at a cost of millions, as the place of meeting of the legislature, is actually so constructed, that no arrangement can be made for more than two-thirds of the working section of it being present at the most important discussion. Even a prominent member of the Ministry "stood for hours unable to get a seat." This egregious piece of absurdity is not however to be charged upon the architect. He was directed by his official superior to provide accommodation for that number, and he did it—that number being at least the average of the usual attendance. The official mind was not prescient of reform bills and household suffrage. Places also, of course, had to be provided for peers and dignitaries, and they were provided. Places had likewise to be found for "strangers," and as every member can give a stranger's order, and there are 658 members, seats were ordered to be provided for 60, with the very dignified result that on any important debate "strangers" who desire to be present at it, must secure a place (either by person or proxy), in the outer hall, and sit there wedged against

the wall and watched over by a policeman for five or six mortal hours, before the doors are opened. With coming events casting their shadows before, it was plain last session, that something must be done. A Select Committee was appointed to consider the matter, witnesses were examined, and Mr. E. M. Barry, the present architect of the House, was called in to advise. No definite result was arrived at, and it is plainly very difficult to arrive at one. Mr. Barry thinks the shortest way out of the difficulty is to build a new House on the site of the adjoining court and dining-rooms, retaining the present House as the lobby to the new one: the new House not being large enough to provide seats for all the members, but sufficient for all who, according to present calculations, are likely to attend.

This scheme, however, would necessitate a great deal of alteration and re-arrangement of the present buildings; would cost a great deal of money, and would after all be only a makeshift. May we suggest a cheaper and readier plan? The Chapter House, just across the street, is being restored in a very thorough and satisfactory manner; but it is being done at a large outlay, which had to be provided for by a parliamentary vote, and last session, querulous members would keep asking, what was to be done with the building when restored. Now, in the olden time, this Chapter House was our House of Commons. It is large enough for the present number of members; infinitely better adapted for the carrying on of the business of the House —that is, for speaking and hearing in—than the actual place of meeting, and it is in just that stage of progress when it might, with little difficulty, be adapted to the required purpose. Why should not the Chapter House be made once again the House of Commons, and the present House of Commons be kept for exhibition, instead of being degraded into the lobby of a new building, which, after another unimaginable sum has been spent upon it, will, in the course of half a dozen years be found so unfit that no alteration can make it serviceable?

The peers had last session a somewhat similar question under consideration with reference to their House. But their difficulty is not to find seats, for the space seems to be more than sufficient, but to make themselves heard; and, like the House of Commons, they appointed a Select Committee to consider what could be done. Oddly enough, the more decided opinion with the committee, and here again it was supported if not suggested by Mr. Barry, was that the best plan would be to give up the present House as the ordinary place of meeting, retaining it as a hall for state ceremonials and for great debates, and to provide a new chamber for the transaction of the ordinary business of the House, in which it would be possible to speak and to hear with ease. A report embodying this as a recommendation was drawn up by the Earl of Carnarvon, the chairman of the committee, and supported by a moiety of the members, but opposed by the other half, and the final report was consequently limited to the recommendation of some makeshift alterations in the present arrangements.

The whole thing is, however, so monstrous, so mortifying, such an outrage on common sense, that, remembering the proverb about the

folly of trying to pick up spilled water, one cannot but feel that it would be best to do quietly whatever must be done and forget the whole affair as speedily as possible, were it not that the moral to which it points is particularly applicable just now. We are about to erect new Law Courts at a cost little less than that of the Houses of Parliament, perhaps to erect a new National Gallery also. With the example before us we may at least avoid another such blunder, and make the new buildings suitable for their purpose whatever else we may fail to accomplish.

Last year we stated that for the Law Courts, the judges had decided in favour of Mr. E. M. Barry's plan and Mr. Street's design. It was then understood that these gentlemen were to be employed as the joint architects. The arrangement has not, however, been carried out, and on June the 8th, 1868, Mr. Street was formally appointed sole architect. The actual arrangement for the national buildings is, that Mr. Street is appointed architect of the Law Courts; Mr. E. M. Barry, architect of the National Gallery; Mr. Scott is to complete the Public Offices at Westminster, and Mr. A. Waterhouse is to superintend the erection of the Museums designed by Captain Fowke at South Kensington. The clearance of the ground for the Law Courts is proceeding rapidly, and the buildings will no doubt be in good time begun. They are buildings which it will be the best speed to proceed with deliberately. A great deal has been said, both in the House of Commons and out of it, in favour of selling the present site and erecting the new buildings on the ground reclaimed from the river by the Thames Embankment. Years ago, when the embankment was first set about in earnest, we pointed out what a magnificent site would be gained for the erection of national buildings, and we have repeatedly urged the importance of not suffering it to be frittered away on any meaner structures. But as regards the Law Courts, we fear matters have proceeded too far for it to be made available for them. The present designs would have to be cast aside and entirely new ones prepared, and though, in the interests of art, this might perchance be a gain, yet the additional expense, in time as well as money, would be enormous, and it is at least doubtful whether the House of Commons would be persuaded to repeal the Act which only the other day settled the site, and place the whole affair again in uncertainty. There is nothing for it, as it seems to us, but to make the best of what we have; to bring all possible pressure to bear upon the authorities, that they may satisfy themselves before permitting a brick of the foundation to be laid, that the buildings as newly planned—they having thrown over the architect whose plans were approved—are thoroughly adapted to their purpose, and then to rest in hope, if not in faith, that Mr. Street, who is an able man, and not wholly impervious to reason, though of the straitest mediæval sect, will reconsider his design and produce something better wherewith to fill one side of the Strand than a mean and gloomy convent. The prodigious western tower he probably designed in pure benevolence—to fright men from the Courts of Law. But though well meant, it will certainly not have that effect, and as it will be seen by all Londoners constantly, and by all visitors to London occa-

sionally, if Mr. Street have any bowels of compassion for his neighbour, any pity for his fellow-townsmen, he will at least abandon that tower of horror and root of bitterness. But if he will not, and it is erected, we shall have one comfort under the infliction—we may safely defy Europe to produce its equal. Frenchmen, however they may be puffed up by the superiority of their modern Paris, will collapse when shown the Babel tower of our Courts of Law.

The Foreign Office and the India Office are so far completed as to be used for the ordinary official business. The state-rooms have been opened for official receptions. But the exterior requires the addition of much of the sculptural decoration before its architectural character is fully brought out; indeed, it will only be when the whole building is completed that it can be properly estimated. At present the Inner Courts with their statuary, are the most effective features. The grand staircase and state-rooms of the Foreign Office, completed this year, are certainly very splendid. The staircase is gorgeous in coloured marbles and gold, of stately proportions, with some novelties of effect, and forms a suitable means of approach to the fine rooms beyond, and which there can be little doubt have a superb appearance when lit-up and filled with the brilliant company likely to be assembled round the Foreign Secretary at a state reception. But the building, as we have said, is not yet complete. The Colonial Office, lately commenced, will form a part of the design. It will occupy the space between the New Foreign Office and Parliament-street. The frontage, as has been officially explained, will extend rather farther than King-street, and not so far as Parliament-street. As this will necessitate the removal of the houses in that part of Parliament-street, it can hardly fail to lead to the removal of the rest of the houses on that side of the street, and thus open from Charing-cross to the Abbey a street of splendid proportions, with the National Gallery at one end, Westminster Abbey and the Houses of Parliament at the other, and the New Public Offices as the most conspicuous building on the way. The Home Office is to be built on the space south of the Colonial Office, but no vote has been taken for it. Mr. G. G. Scott is appointed architect for the whole of these buildings. What is to be done with the frontage opposite the Privy Council is not decided.

The question of providing accommodation for the Public Offices has, however, only begun to be grappled with. The sub-committee of the Commission appointed in 1866 to consider the subject of the Concentration of the Public Offices have, in a preliminary report, lately presented to Parliament, arranged the offices which require to be provided for into five groups, and pointed out how, in their opinion, the necessary space may be obtained. The first group is formed by the Home, Foreign, Colonial and India Offices, and for these, as we have seen, the arrangements are settled. The second group consists of the Naval and Military Offices: it will require a superficial area of 125,400 feet, which the committee think may be found between the India and Colonial Offices and Great George-street, and between Parliament-street and St. James's Park. The third group, which includes the buildings required for the Civil Service

Commissioners, will require an area of 10,000 feet, which may be found between Great George-street and Westminster Abbey. The fourth group, which comprises the Council Office and Health Office, the Committees for Trade and Education, and the Judicial Committee, will require an area of 39,650 superficial feet, which might be found in the space opposite Westminster Hall, between Bridge-street, the Thames, and Parliament-street. The fifth group consists of the Financial Offices, for which there is ample space north of the new Foreign Office. The other Boards and Offices would be provided for in the rooms vacated by the Admiralty Department and Audit Office, except the Poor Law Board, for which the committee have not yet found a home.

Here, at any rate, is a tolerable amount of occupation provided for architects for some years to come. It is hardly probable, however, that the programme will be carried out in its integrity; indeed, the plan subsequently propounded by the commissioners differs materially from that of the committee. This may be described broadly as proposing to erect a new Treasury on its present site, and a new War Department where Dover House now stands, leaving the Admiralty untouched, and thus having the Treasury as a sort of centre with the civil departments on the one side and the naval and military on the other. As regards the centralization of the public offices, and the opportunity of imparting to them architectural importance and character, the proposition of the committee appears the better of the two, but before either is adopted one cannot but hope that the claims of the Thames Embankment will be carefully reconsidered.

At Burlington House the work of construction is proceeding apace. So is that of destruction. The famous colonnade which to Walpole, as he first saw it on looking out of the window of Burlington House at daybreak, "seemed one of those edifices in fairy tales that are raised by genii in a night-time," and the gateway that Hogarth has immortalized, are alike swept away. How far Burlington House itself will escape we hardly know. The *façade* seems to be about to undergo some manipulation; but that matters little now. Deprived of its central gateway and flanking colonnades, Burlington House is a mere trunk, retaining small architectural or historical vitality. Infinitely better would it have been to have swept it away altogether, than to have mangled and mutilated it, as has been done, and kept it, like the statue of George I. in Leicester-square, stuck on a pedestal, as a legless straw man is stuck on a pole in a turnip field.

The new Exhibition Rooms of the Royal Academy are roofed in, and will in all probability be ready to hold the 101st exhibition in next May. Externally the building has little ornament, but it is lofty, capacious, and as a gallery will, we trust, be found sufficient.

The London University, which occupies the site north of the new rooms of the Royal Academy, has its principal front, of 230 feet, to Burlington-street. The building is Italian, of the Palladian type, the baldness of the basement floor being relieved by statues within niches and the free use of Mansfield stone, while the chief effect is reserved for the upper storey. This storey is partly finished, and promises well; but whether the towers will look better in reality than

on paper will only be known when they are completed. The buildings for the learned societies on the Piccadilly side of the grounds are hardly begun. The Royal Society will, it is said, have the east wing.

The permanent buildings of the South Kensington Museum are advancing, and several additional rooms have been opened; but the whole is at present in too chaotic a condition for a just estimate to be formed of either the exterior or interior. The exterior is remarkable for the extent to which terra-cotta is used in the constructional as well as the decorative features. In the interior much of the decoration appears to be experimental, but some of it is very effective. In a year or two more the structure will begin to display the magnitude of its proportions. As far as we know, nothing has been determined as to beginning the great museum opposite, and the removal of the natural history collections from the British Museum, and the rearrangement of the other collections there, remain in as much uncertainty as ever.

Great progress has been made with the Prince Consort's Memorial, Hyde Park. The substantial structure, the canopy which will serve as the shrine of a memorial statue of the Prince, is so far completed that the cross which surmounts the whole has been fixed in its place, and now towers conspicuously over the elms from most parts of the park. Two or three years back we gave so full a description of the work, from the account with which Mr. Scott accompanied his designs, that we may defer any general notice till it appears in something more like its finished state. That will probably be some years yet; but in a month or two the outer hoarding will be removed, and a tolerable notion of its general form and proportions will then be obtainable. Its full effect, however, it must be remembered, is largely dependent on its decorative features, and the greater part of these have to be added. In the leading forms and constructional details, coloured marbles, polished granite, metal work, and a great variety of ornamental materials are employed; but the main decorations will consist of statues and groups of sculpture, in bronze and marble, many of colossal size, a marble frieze of above 200 life-sized figures in high relief, and large and elaborate mosaics, and though many of these are ready, few are in their places, and most are hardly begun. The memorial statue of the Prince was to have been executed by Marochetti, but his model was disapproved and broken; and since the Baron's death the commission has been transferred to Mr. Foley, who has designed a seated statue 15 feet high of the Prince in the robes of the Order of the Garter. Colossal groups of sculpture will flank the granite steps, and represent Europe from the chisel of Macdowell, Asia by Foley, Africa by Theed, and America by Bell. At the angles of the podium will be large allegorical figures or groups of Agriculture by Marshal, Manufactures by Weekes, Commerce by Thorneycroft, and Engineering by Lawlor. The frieze around the podium will be by Mr. Phillip. The total height of the memorial from the ground to the top of the cross is 175 feet. In splendour the memorial will exceed any monument of recent times, and its cost will be proportionate. The substantial structure is contracted for at 100,000*l.*; the sculpture and decorative work is estimated at 30,000*l.*

or 40,000*l.* more. The amount subscribed by the public was about 60,000*l.*, the rest will be defrayed by the Queen. Altogether it is a work on which the earnest labours of so many of our ablest artists have been united, so much affectionate interest centred, and which will be sure to be criticised so keenly by foreigners as an illustration of the highest result of English art, that we trust no desire to see it completed will cause the execution of any part to be hurried, but that all will be carried deliberately forward, and that the result will be a combination of each man's best. The Royal Albert Hall of Arts and Sciences, on the opposite side of the road, of which the Queen laid the first stone on the 20th of May last, is also steadily advancing, and though as yet a long way off completion, discloses the vast proportions of its amphitheatre-like form. It is being constructed of red brick with terra-cotta enrichments. The effect is as yet doubtful. So is its fitness for the objects contemplated. These, according to the last official announcement and the terms of the charter, include national and international congresses; musical performances; the distribution of prizes by public bodies and societies; *conversazioni* of societies founded for the promotion of science and art; agricultural and horticultural exhibitions; national and international exhibitions of objects of art and industry; exhibitions of pictures and sculpture; "and generally any other purposes connected with science and art." The building will cost about 200,000*l.*

The Birmingham statue of the Prince Consort has been erected. It is by Foley, and represents the Prince in the robes of a Knight of the Bath. Despite the barbaric finery of the costume, the statue is in many respects an admirable one, true and intelligent in expression, simple and natural in position, and well executed. It is of Carrara marble, and was intended to be erected between the Exchange and the Grammar School, but it was found that the material and the work were too delicate to withstand the Birmingham atmosphere, and hence it has been placed temporarily in the art gallery of the Midland Institute, whence, it is said, it will be removed to the vestibule of the Law Courts when that building is completed. Mr. Hollins' statue of Sir Rowland Hill also awaits a permanent locality, the Post Office Reformer being pronounced, like the Prince, too delicate in constitution to stand exposure to the open air of Birmingham. A marble statue of the Prince Consort has also been erected in the People's Park, Hull. This, which is from the chisel of Mr. T. Earle, represents the Prince in his ordinary habit, and is said to be faithful as a likeness and unaffected in pose. The Albert Memorial Museum, Exeter, has been opened, but the erection of the south wing of the building is deferred for want of funds, and the design has been marred by the omission of the central tower. At the head of the staircase is a statue of the Prince by Mr. Stephens, of Exeter.

In the quiet old Hampshire town of Romsey, not far from his own pleasant dwelling of Broadlands, a double memorial has been erected to Lord Palmerston—a painted glass window in the grand old Abbey Church, and a statue in the Market-place. Every one who has seen that fine old church will remember the unrivalled triplet of lancets at the west end (the centre one is 39 feet, each of the side ones 36½ feet

high); these have been filled with typical scripture subjects painted by Clayton and Bell. The statue, by Mr. Noble, is of bronze, 8 feet high, and represents the statesman in the act of addressing the House of Commons. We have already mentioned the bronze statue of Sir Robert Peel erected at the western entrance to Palace Yard. It was one of Marochetti's latest works, and like all his later works, shows signs of failing vigour; but though not a great work, it scarcely deserves the rude criticism it has received. It is reported that it is to be removed. Before it is, we trust that a better will be provided to take its place. Certainly it is in the wrong place where it stands. It was meant to be seen from a greater distance and on a higher pedestal, and if it is removed greater attention should be given to the site—a more important matter than is commonly supposed. The best statue could ill afford to be placed at haphazard anywhere; an inferior statue might be ruined by it. A companion statue of Palmerston is to be erected opposite this of Peel.

The memorial statue of Richard Cobden in Camden Town must be regarded as a local, not a national, or even a metropolitan work; and so regarded it is a credit to all concerned. The statue is 8 feet high, and carved from a fine block of Sicilian marble, by the Messrs. Wills, of Euston-road. It has of course no claim to rank high as a work of art, but it is at least as good as many London statues of greater pretensions. Cobden is in his common habit (rendered unnecessarily common by the protrusion of a bundle of papers from the pocket of his overcoat) in the act of addressing the House of Commons; his right hand raised and the fore-finger extended, his left grasping the conventional roll of paper. The statue stands on a freestone pedestal, much too tall, with coarsely carved fruit and corn on the sides. If any other statues have been erected in London this year we have overlooked or forgotten them. Yes: there are the Kings in Westminster Hall, which—it is the old, old story—were commissioned for niches in the Royal Gallery of the Houses of Parliament, but the authorities gave the sculptors the wrong dimensions, or the architect made the niches the wrong size, and when the statues were completed it was found they could not be got into their places, and so they have been set up temporarily in Westminster Hall, where they look as uncomfortable as expelled and homeless monarchs might be expected to look. Some more appropriate abiding place ought to be provided for them.

If the outdoor inhabitants of Birmingham are deprived of their anticipated enjoyment of the effigies of the Prince Consort and Sir Rowland Hill, they have gained one of James Watt, described as a thoroughly successful work and a faithful likeness of the man. It is of Carrara marble, heroic size, from the chisel of Mr. Munro. Hull has shown, that while honouring the memory of the Prince Consort, it does not forget its connection with one who was neither a prince nor a flatterer of princes. The statue of Andrew Marvel, placed at the entrance of Hull Town Hall, is the work of Mr. Keyworth, a townsman, and was presented to the town by a fellow townsman, Mr. Winship. At Leeds a bronze statue of the late Sir Peter Fairbairn, by Mr. Noble, has been erected on a polished granite pedestal in the

Caledonian-road. The memorial crosses of Sir Joseph Paxton at Coventry, and of the Dowager Countess of Ellesmere at Walkden Moor, near Manchester, are completed, or approach completion.

Four or five years ago, in referring to the proposal to erect statues along the Thames Embankment, we remarked that, since in our great towns the surface of Italian marble (the only kind now employed by sculptors) rapidly disintegrates, while bronze blackens, by exposure to the atmosphere, it would be a serviceable thing if some of our chemists would provide or suggest a protective coating that might at once soften the rawness and protect the surface of the newly-carved marble—pointing to the practice of the Greeks as a precedent for the use of such a *circumlitio*. The statement made above that the statues of the Prince Consort and Sir Rowland Hill, though designed and executed for erection in the open air, cannot without risk be exposed to the atmosphere of Birmingham, is sufficient to show that something of the sort is required: but we hope that it was not anything we said that led to the perpetration of a direful act of this kind in the City. The statue of the Queen which stands in the centre of the quadrangle of the Royal Exchange has been smeared over, not with a *circumlitio* such as Nicias employed, but with an abominable compound, dirty, ill-coloured, thick, and smudgy, the same, we believe, as that employed for coating over the decayed stones of the Houses of Parliament, thereby grievously blotching and otherwise disfiguring Her Majesty's countenance. The City merchants are loyal men, but too busy, probably, when "on 'Change," to cast an eye on the royal effigy. But others do, and may measure City loyalty by what they see. The statue, as statues are, was not a bad one, though too small for its place. But half the surface, one or two of the fingers, and some of the features had crumbled away before the mixture, which was to render it beautiful for ever, was applied. That has completed the work of ruin. As it stands, it would disgrace a tea-garden and disfigure a dust-yard. Let the merchants remove it without delay, and provide in its stead a seated statue of noble proportions and of noble execution, at once worthy of the Queen and worthy of the place.

2. Public and Sanitary Works.

The Thames Embankment, the greatest improvement effected in London in recent times, and which must rank among the great works of any time, has this summer been opened to the public, but not in a way to render its value apparent. The portion of the Northern Embankment opened, the only part completed, begins at Westminster Bridge and ends abruptly at the Temple, whilst a tall hoarding shuts off from the sight the land gained from the river, and by its tedious sameness imparts an expression of monotony to the embankment itself. A stroll along on it on a fine day is however sufficient to show how grandly the leading features of the City stand out from it, and what an unrivalled site it affords for a line of public buildings. An understanding has at last been come to with the Metropolitan Extension Railway Company and with the gas company, so that the remainder of the work may now be proceeded with; indeed, we believe that the eastern

extension of the embankment and the railway have both been commenced.

As far as it has gone, nothing can well exceed the apparent stability or the finish of this Northern Embankment. In its workmanship it is quite a model. The granite blocks were all carefully picked to go well together, cut and laid with unfailing accuracy, and dressed as nicely as though for a palace wall. From end to end there is not a faulty joint visible, and no sign anywhere of sinking or shrinking. But withal there is a largeness and breadth of style about the river wall that is quite refreshing to look upon, in these days of niggle and minutiæ. One might take exception to some of the details of the great landing piers for steam-boats, but they are on so noble a scale, and want so much to complete them according to the engineer's design, that we gladly defer criticism till the whole is finished.

The Southern Embankment, or say the river wall, is completed from Westminster bridge to Lambeth bridge, a length of about 2,200 feet, and a footway has for some months been open to the public along it. But this road, like that on the Northern Embankment, is merely useful for a stroll. It begins nowhere and ends nowhere. The length of river wall remaining to be completed is about 2,100 feet. There will be no steam-boat piers to the Southern Embankment. On the ground reclaimed by it the walls are rising fast of the new St. Thomas's Hospital, and the building will probably be finished as soon as the embankment and approaches. The embankment along Chelsea will be proceeded with without delay.

The Main Drainage works, as the reader knows, are in operation with the exception of the Northern Low Level Sewer, which is to be carried along the Thames Embankment, and which consequently depends for its completion upon the construction of that work. Now that the last section of the embankment is being proceeded with, the sewer will advance also. Meanwhile, those portions of it which lie farther east, and some of which present considerable engineering difficulties, are being pushed forward. The great pumping-station at Abbey Mills, West Ham, which is described as the largest and most important portion of the scheme for the main drainage of London, was inaugurated with a great deal of pomp in July last. There the sewage of the low-level drain is lifted to the level of the high and mid-level drains, and thenceforward the three sewers are continued side by side, for the most part in an embankment, to the northern outfall-station at Barking Creek. The Abbey Mills pumping-station occupies an area of seven acres. The sewage is lifted by double-action pumps worked by eight high-pressure condensing rotary beam-engines, each of 142-horse power, which together are capable of lifting 15,000 cubic feet a minute. The elaborate engineering arrangements and machinery are highly praised by engineers and mechanicians. But the buildings are the most surprising thing here. Admission within the works of a great sewage pumping-station is not likely to be often asked by visitors whose olfactory nerves are not wholly paralysed "except on business," and the decorative features of the building in which so delicate a process is in operation as that of lifting several thousand cubic feet of London sewage every minute,

are not likely to engage the serious attention even of the business visitor. What would seem to be fitting in such a case is to erect a plain substantial building, of good external form, so as not to offend the eye as a distant object and to be satisfactory and appropriate when close, and so to contrive the interior that every part shall be suggestive of order, directness of purpose, and neatness. Of all places in the world, one would have thought that here decoration, for the sake of decoration, would not only be most inappropriate, but be least likely to be indulged in. Yet here it is found carried to an extent rare even in buildings where decoration is a chief consideration. "Why, sir," said a bewildered vestryman in addressing a district board on the subject, "the building might be taken for a Turkish mosque or a Chinese temple. For embellishments no music-hall in London can be compared with it. The cost of the roof alone would be sufficient to erect a building more suitable than this for a sewage-pumping station," and then he went into particulars respecting "gold and crimson railings, polished oak doors filled in with bronze flowers, which must have cost at least 200*l.* a piece," and other details which we need not concern ourselves about. But this will show how such misplaced ornament shocks even the ordinary vestry mind. It would shock the cultivated mind, we will venture to say, much more; but happily there is a stronger repellent than an æsthetic blunder, and, like Yarrow's, the stream will remain unvisited.

The main building is cruciform, has a central octagonal tower and lantern crowned by a sort of cupola roof, 110 feet high, with stair turrets at the inner angles. The arms of the cross are 142 feet over, and two storeys high, with a bold cornice and mansard roofs; the style is Pointed, of uncertain character; the materials are coloured bricks, encaustic tiles, and stone capitals and dressings. Attached to the main building as wings, are ranges of boiler houses, and on each side rises from a square base, a detached octagonal chimney shaft, 209 feet high, of coloured bricks worked in a pattern, and crowned by an iron spirelet roof. The interior is such an array of columns of all sizes, with bulbous capitals and decorated bases; arches all over scrolls and stars and flowers; galleries with fluted shafts and flowing rail-work; roofs of complex pattern; naves and aisles and transepts; descending as well as ascending staircases; open shafts with protecting rails, and all sorts of forms and finery, that it would be hopeless to attempt to convey any notion of it. But it is impossible to look at it without feeling that there has been not merely a grave artistic error committed, but—what usually accompanies such an error—a great waste of means and money. The cost of the pumping-station has been nearly a quarter of a million.

The sewage of London is still cast into the Thames from the northern outfall at the rate of 105,000 tons a day, at the southern outfall to the extent of above 180,000 tons a day, with the sure result that great beds of offensive matter are forming in the vicinity of each outfall. Reports are constantly being published of the success attending the use of the sewage on the experimental farm at Barking; but the company which is to apply the sewage to the reclaimed Maplin Sands, does not seem to have made much progress

in their operations. Meanwhile the evil is growing, and, however lightly the Metropolitan Board of Works and its engineer may regard it, may become dangerous.

The Metropolitan Board of Works have at last cleared away Middle-row, Holborn, and the improvement is unquestionable. Their other street improvements lag somewhat. The ground for the new street to the Mansion House is however in good part cleared, and there seems no reason why the street should not be ready as soon as the extension of the embankment, or sooner if required. The proposal for the improvement of Park-lane which the Board have been discussing for years past, they are discussing still—the government Boards all the while, and still, helping. The latest resolution (Nov. 8, 1868) is "to revert substantially to the scheme promoted in 1865." This scheme appears to be to "purchase the two northernmost houses on the east side of Hamilton-place in order to pull down the fronts, and thus widen the roadway to forty feet, and to carry the roadway across the reserved gardens northwards in a straight line with Hamilton-place into Park-lane." The Government does not approve the scheme, so that some new proposal may yet come under consideration. A street improvement in a very different part of the town appears more imminent. The transfer of the Charter House seemed to offer a favourable opportunity for carrying forward a stage of the project for uniting Shoreditch and Oxford-street, by a broad thoroughfare. All that is proposed at present is to purchase so much of the ground as will enable the Board to extend the width of Wilderness-row to fifty feet, and thus form a continuation westward of Old-street to St. John-street. A new street from the Commercial-road to the High-street, Whitechapel, thus getting rid of the narrow and awkward bend at Church-lane, has been long on hand but is approaching completion. With it will be connected the widening of various streets so as to open a new approach to the London Docks.

Several other street improvements are contemplated by the Board, but they are of little interest in comparison with the Holborn Valley Improvements, which are being carried out by the City Corporation, and which are now sufficiently advanced to show their extent and plan. The object, as will be remembered, is to get rid of the steep inclines of Holborn-hill and Snow-hill by carrying a viaduct from Skinner-street to the south end of Hatton-garden. Farringdon-road is to be crossed by an oblique bridge of three Venetian Gothic arches supported on twelve hexagonal columns of polished red granite. A nearly level road will thus be formed 1,400 feet long and 80 feet wide, opening on the west into the broadest part of Holborn. The removal of Middle-row will in effect extend this fine road, with little diminution of width, to Oxford-street. Newgate-street will still for awhile impede the free flow of the traffic eastward, but the houses on its north side are being gradually set back, as leases fall in, and the opening of the viaduct will no doubt accelerate the process. At the Holborn end of the Viaduct is a circus 170 feet in diameter, from which six lines of thoroughfares diverge. That leading to the new Meat Market has been opened for traffic as far as the Farringdon-road; the eastern section will be opened at the same time as the

market. Other roads will lead by easy gradients to the low level streets on each side.

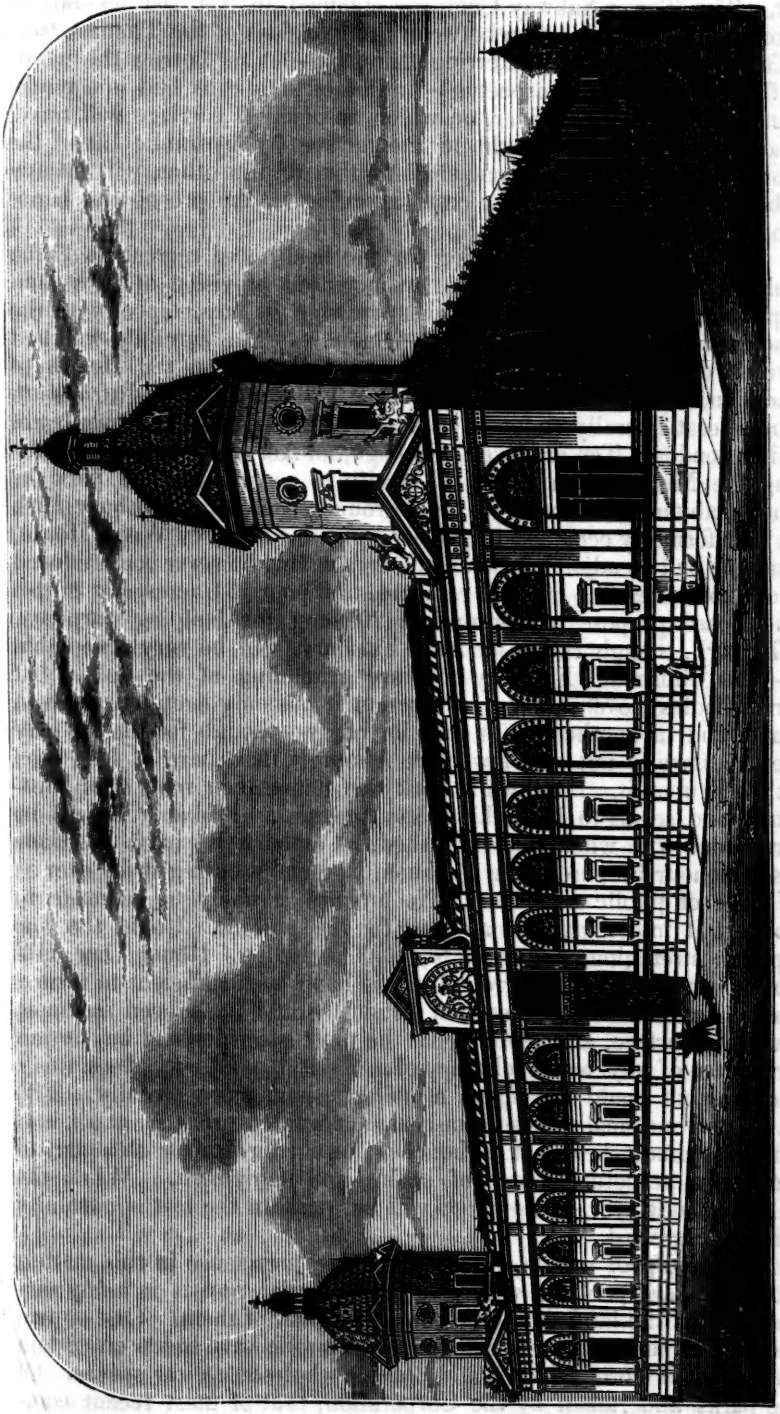
The new Meat Market, the other great work which the City has long had in hand, has been formally inaugurated, and will be opened for business before the publication of this volume. It occupies, we need hardly repeat, the site of the old Smithfield—redolent of so many memories—but extends some distance farther north than the old market. The engraving (No. 1) will convey a general notion of the building, though from its enormous size, a very imperfect notion. The market is in form a parallelogram, 631 feet long and 246 feet wide. The walls are of red brick with pilasters, dressings, and carvings of Portland stone. The style is Italian, modified to adapt it to the purpose, the walls forming a series of recessed arcades between Tuscan pilasters, with octagonal towers at the angles rising from square bases, and surmounted with octagonal cupolas which terminate in lantern finials. From its vast extent the building forms a striking mass, though, perhaps necessarily, the repetition of the same features over so large a space, is a little monotonous, and this at present is increased by the too equal division of the surface into strongly contrasting red brick and stone. Atmospheric action and London dirt will doubtless soon remove this dissonance, but a better effect would have been produced by a more decided predominance of either material. The external work throughout is admirably executed; the mouldings are good, the carving bold and free, and the open iron scroll work which fills the heads of the arches is well designed, and by furnishing strong points of light and shade does good service in the general effect.

The interior is very properly kept free from all unsuitable decoration. It is simple in plan, and thoroughly business-like in its arrangements; light, lofty, cheerful, and well-ventilated. A main road 56 feet wide and 54 feet high crosses it from east to west, and 6 avenues, each 25 feet wide, traverse it from north to south. It contains 162 shops; a tavern, or restaurant in each tower; a post-office and telegraph station. The business part is confined to the ground floor: the upper storey, carried on iron columns, contains rooms for the salesmen. But the unseen part of the building will be almost as busy, and quite as remarkable, a place as the market itself. The floor of the market is wholly sustained on immense iron girders, which are borne on wrought iron columns, 180 in number, the basement, an area of about 3½ acres, being a great railway depôt. Through this, and directly under the floor of the market therefore, the Metropolitan Railway passes; and there are sidings, platforms, and stages for delivering the meat, for the Great Western, Great Northern, and Midland railways, with any other that may be brought into connection with the Metropolitan line. There are besides stores and offices, hydraulic lifts for raising the meat into the market above, and winding roads of easy gradient into the adjacent streets. The market has been built from the designs of Mr. Horace Jones, the City architect. The cost of construction has been about 200,000*l.*, but a much larger sum must be added for the site, for compensation to tenants, and the like. It has been costly, but it has been thoroughly well

done, and the City authorities and their architects deserve all commendation for the way in which they have accomplished their task. On the opening of the new Meat Market, the old Newgate and Leadenhall markets were to have been closed, but so much opposition has been raised in reference to the latter that its doom may probably be deferred. Meat and provision markets, which for long were at a discount in London, seem to be regaining popularity. A new one has been opened at Whitechapel, another at King's Cross; one is announced as in preparation in Kennington, and more are proposed. These, however, seem to be all small, mostly local, and some co-operative in character, generally of limited liability, and many probably of ephemeral existence.

We may make short work with the London railways this year. So many of the projects discussed in former years were abortions or mutilated; the ways of railway directors are so marvellous, and the whole subject is in so unwholesome a condition, that, for the present at least, the more closely we confine ourselves to what has been actually accomplished, the less unsatisfactory it will be. The most remarkable addition to the London lines is the extension of the Midland from Bedford to the Euston-road. The roof of the St. Pancras Terminus, to which we called attention last year, is really magnificent in its proportions. Formed by a series of obtuse pointed arches, 240 feet in span and 150 feet high, clear of all ties and braces, and without pillars or internal support of any kind, it appears something marvellous. But magnificent as is the appearance of this covered part of the terminus, the other portions would probably appear even more surprising if they could be followed out in detail. The underground arrangements, including extensive stores, stages, and sidings, and the tunnels connecting this line with the Metropolitan are probably without a parallel. When Mr. Scott's more than palatial hotel is built, we shall probably have in the Midland the most magnificent railway terminus in London.

The underground Metropolitan Extension has been opened from Praed-street, Paddington, to the Gloucester-road station, Brompton, thus, among other advantages, rendering that, to most Londoners, most inaccessible of all public places, the South Kensington Museum, a little more accessible. The continuation to Westminster is in progress, which can hardly be said of the section beyond, and the construction of which bids fair to keep the public out of the enjoyment of the Thames Embankment for years yet to come. Another extension of the underground line, the Metropolitan and St. John's Wood has also been opened. So also has a portion of the long delayed and unlucky Tottenham and Hampstead Junction Railway, but as nobody knows where it goes to, and nobody goes by it, we need waste no more words on it. The Hammersmith and Richmond line is all but completed, and is chiefly valuable as affording additional facilities between the City, Kew, and Richmond. The East London Railway, which is to pass through the Thames Tunnel, proceeds very tardily, but it appears to have some vitality, and, though the present may not, another generation may see it reach maturity. If, however, it do not bestir itself, a rival may cross the bottom of the Thames before



No. 1.—Metropolitan Meat Market.

it. The Tower Subway Company obtained an Act last session, for forming a communication between the two sides of the Thames, from Tower-street to Pickle Herring-stairs, by—let us borrow the words of the Company's prospectus—"a line of steel rails laid in a tunnel under the bed of the river, on which an omnibus carriage will travel each way, and be brought to the surface by hydraulic lifts: the journey, from the top of one shaft to that of the other, will occupy about three minutes." The cost, according to the prospectus, is not to exceed 16,000*l.*

Let us turn to what is doing for the health and recreation of the inhabitants of our great towns by increased provision of parks and open spaces. It is a matter ever growing in importance, with the increasing density of the town populations. The carefully-weighed words of the Registrar General, in his Report on the Health of London, 1868, admit of no evasion: "The unhealthiest districts are those least liberally endowed with open spaces." As usual we begin with London. Ten or eleven years ago, an Act was passed empowering the Metropolitan Board of Health to construct a new park for the inhabitants of Finsbury. The ground secured for Finsbury Park is that formerly occupied by the once popular Hornsey Wood House, and one or two adjoining fields, the area having however been reduced from 250 acres, the original estimate, to a poor 131 acres, and of this the Board propose to appropriate 20 acres for building purposes. The park, though rather far from Finsbury, will be very acceptable —when finished. Finsbury folk are grumbling at the delay, but great bodies move slowly. At present it has only been ten years in hand, and in another ten it may be ready—though for that it may be necessary to put on a few more labourers than have of late been at work upon it. Southwark Park was undertaken soon after Finsbury, and seems to be making less progress. Probably it will be proceeded with when that is finished. Camberwell parish has done itself honour by purchasing Peckham Rye and securing it for ever as a place of public recreation. No attempt is likely to be made to convert it into a park, at any rate for the present. Could the fine upland stretching eastward to, and including, Honor Oak Hill have been obtained, the ground would have been sufficient to form a park where one is much wanted; and it would have been the most varied in surface, and afford by far the most extensive and interesting prospects of any metropolitan park. Is it too late to effect this? Government could not spend a moderate sum more usefully. The saving of one smallest-size gun-boat, not wanted probably at all, and obsolete almost before it is launched, would furnish for this part of London a perpetual source of health and enjoyment. When the hills are built over, as they soon will be, perhaps the lost opportunity may be regretted.

The Liverpool people are showing more prescience in this matter. For long Liverpool was without a public park; now it is being surrounded on the land side by a complete chain of them. One or two are private parks; but even to them the public have access on certain days, and, if closed, they would provide wholesome clear spaces. Of the parks undertaken by the Corporation, that of most recent com-

pletion is Newsham Park, on the east side of the town. South of this are Wavertree Park and the Botanic Gardens, with, farther on, Prince's Park and the Dingle. North of Newsham Park are the pleasant grounds laid out some time ago by the Corporation as Shiel Park. At the extreme north of the town is Stanley Park, a very pretty piece of ground of 150 acres, bought of the Earl of Derby, which is assuming a very ornamental appearance under the experienced hands of Mr. E. Kemp, the well-known landscape gardener of Birkenhead Park. And, lastly, although Stanley Park is unfinished, the Corporation have bought at the extreme south of the town, a beautifully broken tract of 375 acres, having hill side and hollow and brawling streamlets and far-stretching views, and handed it over to M. André, inspector of the parks of Paris, and Mr. Hornblower of Liverpool, to convert into a park that is to emulate Hyde Park in its Rotton Row and Ring for equestrian and carriage exercise, rival Kew in a grand conservatory and botanic gardens, and is to have, besides, —what neither Hyde Park nor Kew can hope to rival—kiosks at the points commanding the widest prospects; a dozen rocky cascades, fountains, refreshment pavilions, and a cricket-ground of 12 acres. They gave Earl Sefton 250,000*l.* for the ground, and proposed to spend 140,000*l.* in turning it into a park; but if they try to realise all that M. André has imagined, no wonder the Corporation has found itself constrained to borrow an additional 150,000*l.* "for park purposes."

Throughout the country parks are being formed. Even the busy new coal and iron port of Middlesborough has its Albert Park, formed and presented to the town by its first mayor, and first M.P., Mr. H. W. F. Bolckow, and opened by Prince Arthur in August last. Albert Park is about 72 acres in extent, and very prettily laid out and planted. The new park, presented to the city of Chester by the Marquis of Westminster, was opened towards the close of last year. It is described as very pleasing and very popular, and is said to have cost 70,000*l.* By way of marking their appreciation of the gift, the Chester people have subscribed 5,000*l.* for a statue of the Marquis to be erected at the entrance of the park. At Southport, a little watering-place on the Lancashire coast, a group of sand-hills, lying on either side of a narrow green valley, have been formed into a pretty little park or pleasure-ground, under the care of Mr. Kemp of Birkenhead, at a cost of 15,000*l.*, which is to be defrayed by a special rate. Land has been purchased to form a public park of about 60 acres at Hulme and Chorlton-upon-Medlock, and at the busy little straw-plaiting town of Luton one is proposed.

The necessity for an abundant supply of good water is becoming everywhere recognised. Whether any comprehensive scheme for the supply of London will be adopted, or whether the improvement and extension of the present companies' service will be made to serve for a few years longer, appears at present uncertain; but probably the more costly scheme will be for awhile deferred. Liverpool is in pretty much the same difficulty as London. Within the last ten years the Corporation have spent 2,000,000*l.* in the formation of large reservoirs at Rivington, about 25 miles from Liverpool, in order to collect the rainfall of a wide district, and connected works, from

which it was calculated that an average daily supply of 13,000,000 gallons would be obtained; but the supply has only averaged 9,000,000 gallons, and with the town wells the average supply is only 15,000,000 gallons, whereas it is considered that the present requirements of the inhabitants exceed 18,000,000 gallons, and Liverpool, like London, is casting about how to make good the deficiency—whether to turn to Bala Lake, or some other distant and equally inexhaustible source, or to extend the existing arrangements.

At Croydon new water-works have been constructed, which afford an average daily supply of 2,000,000 gallons, and can be made to yield a much greater quantity. Barnsley has obtained a new supply by constructing a storage reservoir of about 70 acres, some 9 miles from the town. The reservoir is 60 feet deep, and holds 40,000,000 cubit feet of water. A sum of 75,000*l.* was borrowed by the town for the completion of the works; the reservoir cost about 23,000*l.* At Swansea extensive works have been completed under the direction of Mr. Rawlinson, at a cost of over 70,000*l.* The principal feature is a vast reservoir, formed by an embankment across the Lliw Valley, about 8 miles from the town. It is 650 feet long, its extreme width is 403 feet, and depth 82 feet; and it is capable of storing 300,000,000 gallons. The works can furnish an average supply of 4,000,000 gallons daily. The Leeds Corporation are engaged in carrying out a very extensive scheme, which, however, will require many years for its complete execution. By it the entire valley of the Washburn, a picturesque tributary of the Wharfe, will eventually be converted into a series of reservoirs capable of storing, for the supply of the Leeds of the future, more than 3,000,000,000 gallons of water, and furnishing a daily supply of about 23,000,000 gallons: the present daily consumption appears to be 6,000,000 or 7,000,000 gallons. At Bedford, waterworks have been constructed and a subterranean brick tank built, capable of storing 400,000 gallons, about double the average daily consumption of the town. With the waterworks an efficient scheme of drainage has been embodied, including the utilization of the sewage by its application as a fertilizer to the old Priory meadows. Carlisle and other places have also formed new waterworks, or extended their existing works, but these will suffice to illustrate what is being done in various parts of the country.

The good work goes on of providing cheap, healthy and comfortable workmen's dwellings. At the beginning of 1868 the trustees of the Peabody Fund reported that 1583 persons were then resident in the dwellings erected by means of Mr. Peabody's munificent gift, and the testimony they bear to the good resulting from this application of the money is worth putting upon record.

"The sanitary condition of the dwellings continues highly satisfactory, and the houses, well ventilated, open to free air, and kept with scrupulous cleanliness, appear to secure exemption from diseases incident to crowded localities. . . . Good order and general contentment prevail; and the tenants, undisturbed by any interference with their comfort and freedom of action, evince no desire to change their abodes. Independently of the direct economic advantages derivable

from the application of Mr. Peabody's bounty, satisfactory evidence of its social effects becomes every day more apparent—in the peaceful deportment of the tenants, the improved order within their apartments, and the disappearance of excess of all kinds. The healthy aspect of the children, the neatness and tidiness of their dress, and their inoffensive happiness at play in the ample and secluded grounds, secure from evil street intercourse, abundantly justify the belief that a beneficial influence is being exerted over the future of the working classes by the signal improvement thus introduced into their dwellings and domestic habits."

Additional sites have been purchased and more buildings begun, and next July Mr. Peabody's additional gift of 100,000*l.* will be available for the erection of similar dwellings anywhere within ten miles of London, and accessible by railway. Some additional ranges of industrial dwellings have been completed by the various general and local societies established in London and the vicinity, but there is still much overcrowding to be remedied. The movement is being carried forward with spirit in several of the large country towns.

3. Churches and Chapels.

Although there is no very marked diminution in the number of new churches this year, there are symptoms of declining activity in church building. It could indeed hardly be expected that the number of churches erected every year, for so many years in succession, and erected, as we may fairly suppose, in a majority of cases in the places where new churches were most needed, should not gradually lessen the demand for still new churches. Something, too, must be allowed for the effect of men's minds having been strongly drawn in other directions, and something it can hardly be doubted for the consequence of internal division. Yet, for the present at least, the ebb is not visible. There is only a lessening of the flow. But those most concerned will do well to take note of it. The time has not arrived for the stream to stop without causing material injury. Church building has as yet not nearly overtaken the requirements of our town populations. Merely in the interest of art, there would be no reason to regret a lull in church building. Large and showy and highly ornamented churches are built, but it is the rarest thing in the world to see a spark of original spontaneous artistic feeling in any one of them. If churches continue to be built much longer as they are being built now, the soul will altogether die out of English ecclesiastical architecture.

The present fashion for churches is a kind of French gothic, very like, at a glance, the latter *ogival primitif*. But it does not satisfy the eye, much less the mind, like that. A real church of that kind; a church of the country and the time it professes to belong to, has a unity, meaning, definiteness of purpose about it, there is no misunderstanding. The church, you have not a moment's doubt, was built for the service. There are no parts that look superfluous, obsolete, put there for ornament only. You trace the mind of the artist in the con-

ception of the whole and the modelling of the parts; all is free yet connected, natural but impulsive. Not so with the imitation. It looks like an imitation and not the true thing. It is evidently made up, a thing of shreds and patches, put together with a considerable amount of skill undoubtedly, but still put together. Nothing about it is spontaneous. No form or feature or detail looks to be the artist's own invention. The form and the ornament belong to an age and mode of thought and feeling entirely foreign and distant. The church, in a word, disguise it as you will, belongs to another age, another country, another form of service and another faith. As an archæological exercise it may be very ingenious; as a work of art it is utterly worthless. Fifty years hence, perhaps in half that time, perhaps less, such buildings will be regarded with as much indifference, if not contempt, as work of art, as we regard the toy temples of fifty years back.

Of course where churches are not meant for parishes, or for the usual service of the prayer-book, but for the use of the directory and the full performance of sham-romanistic rites, a strictly imitative building may be most appropriate—but even then it is only sham, and like all shams, has something poor and mean and puerile in its very nature. It is not to be supposed that any change is likely to take place now in the architectural character of our churches. Step by step the present system has been reached. The actual phase is only the passing fashion. The fashion will change but the system will continue. French First Pointed may give place to German or Italian or even to Byzantine; or there may be a recurrence to an English type, or to a later period. But the change will be on the surface. The church will be still a reproduction—and, in all likelihood, will be a mediæval reproduction. For the sake of the architect as well as the building, it is necessary to keep this distinctly in mind in looking at and estimating a new church. In judging any work you must look at it from the producer's own point of view. There is another point of view from which you will have to look at it also in order to arrive at a complete estimate. But that does not apply to new churches. It may be taken for granted that they are imitative works, both as to form and details; and it will be enough, therefore, to consider them with reference to the greater or less taste and skill with which the parts are dovetailed together, the constructive ability, and the tact with which incongruities are accommodated.

Even thus regarded the churches of this year are in no way remarkable. St. Jude's, East Brixton, by Mr. E. C. Robins, is one of the examples now so frequent where an attempt is made to give an appearance of originality by exaggeration or eccentricity. It is a cruciform building, with nave, aisles, deep chancel, tower on the north of the chancel, and porches on the west and north. The style is of that period when the Second Pointed was rapidly growing out of the First; the window tracery, and the capitals of the columns which divide the nave and aisles, being clearly from French models, while the heavy open timber roof is of English character and later date. The building is faced with Kentish rag, relieved with red Mansfield stone. In the pulpit, reredos [and] chancel generally,

coloured marbles, alabaster, Mansfield and Caen stone, and encaustic tiles are freely used. Mr. E. Christian's church of Holy Trinity, New Brentford, consecrated last August, but partially completed three or four years earlier, also belongs to the eccentric rather than the beautiful; it is early Second Pointed in style, but of a decidedly foreign character, is built of brick, and consists of nave and aisles, with an apsidal chancel and aisles, in one of which the organ is placed, and a slender brick spire. Christ Church, Camberwell, by Mr. B. Keeling, is late French First Pointed in character, with a tower and spire 140 feet high.

Of a somewhat different class is St. Augustine's, Hackney, by Mr. J. C. Hakewill, a comparatively plain but well-built First Pointed fabric, comprising nave, aisles, chancel, and tower, with 1,120 seats, of which 740 are free. Somewhat more marked in character, though still presenting no feature calling for especial comment, is Holy Trinity, Plaistow, a people's church designed by Messrs. Banks and Barry, for the especial accommodation of the labouring population collected about the Victoria Docks and manufactories in that new and populous but poor district "over the border." Like the former, it is First Pointed in style, and is equally capacious, having over 1,000 seats, all of which are free. St. Matthew's, New Kent Road, Newington, is a slight looking Second Pointed building, somewhat florid in its decoration, designed by Mr. H. Jarvis. More sober in character, and not without some good points in the design, is the neat First Pointed church of St. James, Fulham, by Mr. H. A. Darbishire, which supplies 750 sittings, half of them being free and unappropriated.

At Old Brentford, a new church, St. Paul's, has been erected from the designs of Messrs. Francis, better known by their City offices than churches. In style it is Second Pointed, and has throughout a good deal of boldly-executed carving. The exterior is of Kentish rag with Bath stone dressings; the interior of brick laid in patterns, the piers and capitals, arches and tracery, corbels, string-courses and mouldings being of Bath stone. It consists of nave and aisles, chancel and organ chamber, south porch and tower, of which, however, only the lower part is yet built, but which is to be carried up to a height of 140 feet. The pulpit is of Caen stone and alabaster, with serpentine shafts and carved oak panels; but, as is now the usual practice, the decoration is most lavished on the chancel, which is paved with rich encaustic tiles, and contains carved oak stalls, sedilia, priests' desks and lectern, a marble credence, and an elaborate and costly reredos of Caen stone, alabaster, and coloured marbles. Altogether this must be regarded as the most pretentious church which has been consecrated during the year in London or its vicinity.

One that may claim further notice when finished, St. Mary Magdalene in the Westbourne-road, Paddington, has been opened, but is at present in a very incomplete state, only the nave and chancel being as yet constructed, and these being covered with a temporary roof. The architect is Mr. Street. St. Mary, Charterhouse, has been opened. It is a spacious street-church, built by the Bishop of London's Fund to afford about 1,000 free sittings, in a very poor locality,

but makes no pretence to architectural character. Other churches are in course of erection at Millwall, from the designs of Mr. E. L. Blackburne; at Somers Town; at Haggerstone; at West Holloway; at Finchley; at Bromley by Poplar; at Plaistow (St. Andrew's); at St. George's-in-the-East; and in Kentish Town.

Among the newly-completed churches in the country, a foremost place must be assigned to that of St. Michael and All Angels, St. David's Hill, Exeter, an elegant First Pointed building of Westleigh stone, with Hamhill stone dressings; quiet in character but admirably finished, and noteworthy for an east window of superior design, and a tower with a spire, imitated from that of Salisbury Cathedral, 233 feet high, forming, from the elevated site on which the church stands, a conspicuous object in a general view of the city, and rising far above the towers of the cathedral. The architect was Mr. Hawkins. The church has only 650 seats, but it is said to have cost 20,000*l*., entirely defrayed by Mr. W. Gibbs, who has added an endowment of 80*l*., and erected a parsonage and schools.

St. Clement's, Chapeltown-road, Leeds, consecrated in September, is one of several new churches proposed to be erected by the Leeds Church Extension Society, and is considered a successful attempt to combine the requirements of a town church with ecclesiastical character. It consists of nave and aisles, a deep apsidal chancel of seven sides, with an organ chamber on the north, and has a tower at the south-east angle, 122 feet high to the top of the stair-turret. The materials are brick and stone; the style early Second Pointed. The nave is covered with a waggon-roof, above which is a ventilating chamber; and the seven double-light windows of the apse are filled with painted glass, by Mr. Wailes of Newcastle, representing subjects from the history of our Lord. The architect was Mr. Carson of Leeds. Sharrow Church, Sheffield, erected by the Sheffield Church Extension Society, is, however, a more picturesque building. It is late French First Pointed, with plate tracery, is built of local and Derbyshire stone, and consists of a nave with clerestorey, having circular windows under pointed string-courses, low aisles, a tall transept and deep chancel, with a large and elaborate five-light east window, baptistery at the west end, north porch, tower, and lofty octagonal stone spire at the north-east angle of the transept. The architect was Mr. J. B. Mitchell-Withers of Sheffield.

St. David's, Neath, has been erected for the English service, the old parish church being retained for the Welsh. Its form has some peculiarities, and seems to have been made studiously irregular, but the building is rather striking in appearance, and carefully finished. It comprises a narthex, wide nave with clerestorey and two aisles, very shallow transepts, chancel with semi-circular apsidal termination, south porch, and tower at the angle formed by the south transept and chancel. The style is French First Pointed. The interior is treated with a good deal of attention to picturesqueness, the object being, as is now usual, to make the decoration culminate in the altar. The chancel is deep, raised three steps above the nave, and separated from it by a low stone screen, the apse is raised seven steps above the chancel, and behind the altar is a richly carved stone reredos rising to the

windows. Of these there are ten couplets with roses over, so arranged as to form a continuous arcade round the apse. The architect was Mr. J. Norton.

A church of rich internal character, St. Paul's, has been opened at St. Leonards. It is an early Second Pointed structure, is built of local blue stone with Bath stone dressings, and consists of nave with clerestorey, aisles, chancel, with apsidal termination, two porches, and a tower, to which a lofty spire is to be added. The columns of the nave, arcade, and the chancel shafts are alternately of coloured Greek and Devonshire marbles. The whole interior is rich, but the decoration is concentrated on the chancel. This has the floor, which is considerably raised, laid with encaustic tiles, representing medallions of saints, symbols, and patterns; there are sedilia of carved Caen stone; the stalls are of carved oak; the reredos is of marble richly inlaid; the windows are filled with painted glass by Clayton and Bell. The church, which was designed by Mr. J. Newton, has 700 seats.

The Duke of Bedford has built a splendid church by the entrance to his park at Woburn. It was designed by Mr. H. Clutton; is First Pointed in style, and constructed of Clepsham stone, with Box-stone dressings for the exterior, and Cowham stone inside. The nave is 96 feet long by 64 feet wide, and is covered by a vaulted roof 50 feet high. Arcades with seven plain columns separate the nave and aisles. The chancel, 52 feet deep, and 26 feet wide, is raised 3 feet 6 inches above the nave, the altar platform being a foot and a half higher. Some of the windows are, and all are to be, filled with painted glass. Beneath the chancel is a crypt, 72 feet by 24, with a vaulted stone roof borne on thick columns, which is to serve as the future burial place of the Bedford family. At the west end of the church is a tower and spire nearly 200 feet high. The great bell, by Mears, weighs three tons. The duke has also erected a handsome, though less splendid, church at Woburn Sands. It is by the same architect, but later in style; is solidly built of stone; and consists of a nave with open timber roof, chancel, and western tower 80 feet high, and has about 500 seats.

Mr. Street has carried forward his church of All Saints, Clifton, a step, and the church has been consecrated and opened for service, but it is still far from complete, and is covered with a temporary roof. Mr. Butterfield's church of All Saints, Babbicombe, Devon, is in like case. Both are intensely ritualistic and deeply symbolic, and will be very splendid; and therefore are not to be judged in their imperfectly developed condition. Churches of a more or less costly description are rising fast at Birmingham (St. Gabriel's, Bordesley-street), at Eastbourne (St. John's, Meads), designed by Mr. H. E. Rumble, and in various other places.

As in former years, we give a list of the remaining churches, arranged under the First Pointed (or Early English) and Second Pointed (or Decorated) styles. This classification, however, we must repeat, is merely to be understood as implying that the church approximates more or less closely to the style under which it is placed. When not otherwise stated, the church may be understood to consist of a nave and aisles, chancel, vestry, and a tower, or tower

and spire; unless it be a small church, when it will ordinarily have only nave and chancel, with a bell-turret instead of a tower.

Among the churches First Pointed in style are *Milton*, near Gillingham, Dorsetshire; somewhat severe in its exterior, but rather richly ornamented inside, the windows filled with painted glass by Messrs. Ward and Hughes; architects, Messrs. Slater and Carpenter. St. Michael and All Angels', *Bradford*, Yorkshire; of a late First Pointed character; 708 sittings; cost 3,600*l.*; architects, Messrs. Healey. St. Mary Major, *Exeter;* rebuilt; chancel, nave, and aisle, separated by deeply moulded arches, with polished marble shafts; windows filled with painted glass by Mr. Herley, of Taunton; cost 6,000*l.*; architect, Mr. Ashworth. *Thornton Watlass*, near Bedale, Yorkshire; parish church rebuilt, except tower, which is retained; of sandstone with Ancaster stone dressings; cruciform, with north aisle and porch; cost 1,800*l.*; architect, Mr. G. F. Jones. *Hoole*, Cheshire, of red sandstone; nave, chancel, and north aisle; 600 sittings; cost 3,500*l.*; architect, Mr. Daukes. St. James's, *Denton Holme*, Carlisle; cruciform, with a tower and spire at the south-west, 120 feet high; 500 sittings, all free; cost 4,500*l.*; architects, Messrs. Andrew and Pepper, of Bradford. St. Peter's, *Harton*, Durham; of late character; 220 sittings, all free; cost 1,850*l.*; architect, Mr. C. H. Fowler. St. Paul's, *Haswell*, Durham; 294 sittings, all free; cost 1,913*l.*; architect, Mr. C. H. Fowler. St. Ives', *Leadgate*, near Gateshead, Durham; 430 sittings, all free; cost 2,300*l.*; architect, Mr. C. H. Fowler. St. Mary the Virgin, *Blackmore End*, Wethersfield, Essex; 200 sittings, all free; cost 1,200*l.*; architect, Mr. C. Buckeridge. St. Mary's, *Upton*, near Birkenhead; of stone; nave and chancel, with tower at west; 300 sittings; cost 4,000*l.*; architect, Mr. J. Cunningham. *Pokeswell*, Dorsetshire; the parish church rebuilt; cruciform; architect, Mr. Evans, of Wimborne. St. Martin's, *Bradley*, Staffordshire; built at the expense of the Baldwin family; cruciform; the chancel is filled with painted glass windows; north of the chancel is a memorial of the Baldwin family, in the form of a canopied niche, with coloured marble and serpentine shafts and enrichment; 850 sittings; cost 6,000*l.*; architect, Mr. Bidlake, of Wolverhampton. St. Paul's, *Cassop*, Durham; 227 sittings, all free; cost 1,542*l.*; architect, Mr. R. J. Withers. St. John the Evangelist's, *Stamford Bridge*, Yorkshire; 170 sittings; cost 1,500*l.*; architect, Mr. G. F. Jones. All Saints', *Tilford*, Surrey; 220 sittings; cost 2,000*l.*; architect, Mr. E. Christian. *Wansford*, Yorkshire; erected at the expense of Sir T. Sykes, Bart., on the site of a chantry chapel dedicated to the Virgin, demolished in the 14th century; architect, Mr. G. E. Street. Christ Church, *Wootton*, Hampshire; 132 sittings; cost, 856*l.*; architect, Mr. J. Colson, St. Mary the Virgin, *Itchinstoke*, Hampshire; nave and chancel, of a somewhat peculiar character, with an interior rich in coloured marbles, carvings, and decorations; designed by Mr. H. Conybeare. St. Mary the Virgin, *Strathfieldsaye*, Hampshire; built and endowed by the Forbes family; of brick and stone; consists of nave, chancel, and short north aisle; some of the windows are filled with painted glass; architect, Mr. Butterfield. St. Bartholomew's, *Sealand*,

Flintshire; of stone; nave and chancel, with tower 65 feet high; 300 sittings; cost 2,300*l.*; architect, Mr. J. Douglas, of Chester. St. James's, *Hayton*, Cumberland; 300 sittings; cost 1,300*l.*; architect, Mr. Travers, of Manchester. St. James's, *Selby*, Yorkshire; with tower and spire 165 feet high; architects, Messrs. Newstead and Low. St. Barnabas', *Burn Moor*, Durham; built at the cost of the Earl of Durham; of brick; architect, Mr. R. J. Johnston. St. Stephen's, *Newcastle-upon-Tyne;* 650 sittings; architect, Mr. R. J. Johnston. St. Peter's, *Birkenhead;* only the narthex, nave, and aisles as yet completed; of brick and stone; 700 sittings, all free; cost about 2,500*l.* St. John the Divine, *Brooklands*, Manchester; French in type, of brick and stone; 500 sittings; architect, Mr. S. Brooks. St. Catherine's, *Gloucester*, of French type, brick with stone dressings; consists of nave, aisles, and apsidal chancel, the chancel windows being filled with painted glass; cost 2,000*l.*; architect, Mr. H. Medland. St. John the Evangelist, *Sutton Veney*, Wiltshire; the cost defrayed by the Everett family; of local stone, with Bath stone dressings; has a tower and spire 151 feet high; most of the windows are filled with painted glass; 400 sittings; cost 7,000*l.*; architect, Mr. J. L. Pearson. St. Matthias', *Nottingham;* of brick and stone; has nave, chancel, chancel aisles, and apse; 700 sittings; cost 3,000*l.*; architects, Messrs. Hine and Evans. St. Nicholas', *Cramlington*, Northumberland; of stone; consists of nave, with clerestorey and aisles, chancel, and tower at west 72 feet high; most of the windows are filled with painted glass; cost about 3,000*l.*; architects, Messrs. Austin and Johnson. All Saints', *Cheltenham;* French in character; cruciform; the spire is to be carried to a height of 200 feet at a future day; architect, Mr. J. Middleton. *Tibberton*, Worcestershire; rebuilt of brick and stone; cost 1,040*l.*; architect, Mr. Hopkins. All Saints', *Thornton-Hough*, Cheshire; cruciform, with tower and spire 120 feet high; 460 sittings; cost 8,500*l.*; architects, Messrs. Kirk, St. John's, *Kempston*, Bedfordshire; nave and chancel; architect Mr. R. Palgrave. St. John's, *Hollington*, Sussex; 500 sittings; cost 4,000*l.*; architect, Mr. E. W. Wyon. All Saints', *Codicote*, Herts, with Romanesque modifications; cruciform, with the chancel arch carried up above the roof to sustain a bell-cote, the west end of the nave terminating in an apsidal baptistery; 275 sittings; cost 2,200*l.*; architect, Mr. A. W. Blomfield. All Saints', *Curbar*, Derbyshire; cost about 2,000*l.*; architect, Mr. A. Salvin, jun. St. Deny's, *Southampton;* of red brick, with Bath stone dressings, consists of nave and north aisle, chancel, and north chancel aisle; 700 sittings; cost 5,000*l.*; architect, Mr. G. G. Scott. St. Philip's, *Kelsall*, Cheshire; 180 sittings; architect, Mr. T. Bower, jun., of Nantwich. St. Paul's, *Liverpool;* of brick and stone; architects, Messrs. Culshaw and Sumner. *Llanfair Caerlinion*, Welshpool, Montgomeryshire; rebuilt on the old foundations; of stone; 427 sittings; cost 1,900*l.*; architect, Mr. E. Haycock, jun., of Shrewsbury. St. Anthony's, *Newcastle-on-Tyne;* of red and black bricks; only nave, chancel, and south aisle as yet erected; 360 sittings; architects, Messrs. Austin and Johnson. Christ Church, *Stoke*, by Guildford; of brick

and stone; at present only the nave completed; architect, Mr. E. Christian. *Ollerton*, Cheshire; 200 sittings; architect, Mr. Fowler, of Louth. Christ Church, *Ivegill*, Cumberland; of stone; 116 sittings; the windows are filled with painted glass by Mr. A. O'Conner; architect, Mr. R. J. Withers. St. Nicholas', *Birmingham*; 600 sittings, all free; cost 3,500*l.*; architects, Messrs. Martin and Chamberlain. St. John the Baptist, *East Acklam*, Yorkshire; on the site of the old church; nave, chancel, and tower on the east; cost 1,250*l.*; *Stockton Heath*, Cheshire; of brick and stone; consists of nave, chancel, south aisle, and north transept; several of the windows are filled with painted glass; architect, Mr. E. G. Paley, of Lancaster. St. John's, *Llanbrynmair*, Montgomeryshire; nave and chancel, with apsidal termination; cost 850*l.*; architect, Mr. D. Walker, of Liverpool. *Hednesford*, Staffordshire; of stone; at present consists of nave, chancel, and south transept; 500 sittings; cost 3,000*l.*; architect, Mr. W. Rushworth. *Broughton*, Lincolnshire; of brick and stone; 200 sittings; architect, Mr. Fowler, of Louth. St. Thomas's, *Hyde*; of rubble stone, with brick dressings; consists of nave, chancel, and north chancel aisle; 600 sittings; cost 2,300*l.*; architects, Messrs. Taylor, of Manchester. Christ Church, *Patricroft*, Manchester; of brick and stone; nave, aisles and chancel; 600 sittings; cost 3,900*l.*; architect, Mr. J. Lowe. Christ Church, *Windhill*, near Bradford; consists of nave, with clerestorey, aisles, and chancel; cost, 4,200*l.*; architects, Messrs. Andrews and Pepper, of Bradford. *North Otterington*, Yorkshire; of brick and stone; cost 1,150*l.*; architects, Messrs. Atkinson, of York. Memorial Chapel of St. Michael, *Campden*, Gloucestershire, nave and apsidal chancel, with bell-turret; architect, Mr. J. Pritchard.

Churches, Second Pointed in style, have been erected, among other places, at *Lyncombe*, Somersetshire (St. Luke's), of early character; cruciform; the tower and spire left are for erection at a future opportunity; 384 sittings; cost 2,850*l.*; architects, Messrs. Hickes and Isaacs. St. Andrew's, *Burnley*, Lancashire; of early date; cruciform; 580 sittings; cost 3,000*l.*; architect, Mr. J. M. Taylor. St. Clement's, *Urmston*, Lancashire; nave and south aisle, with chancel and chancel aisles; 360 sittings; architect, Mr. J. M. Taylor. St. Chad's, *Headingley*, near Leeds; built at the expense of and endowed by the Beckett-Denison family; nave and chancel with an apsidal termination, and tower and spire 186 feet high; designed by Mr. E. B. Denison and Mr. Crossland. St. James's, *Shaftesbury*, Dorsetshire; 420 sittings; cost 3,500*l.*; architect, Mr. T. H. Wyatt. St. John the Baptist, *Newtown*, Leeds; 602 sittings, all free; cost 3,200*l.*; architects, Messrs. Adams and Kelly. *Nidd*, Yorkshire, erected by Miss Rawson, of Nidd Hall; nave, chancel, and tower; architects, Messrs. Headley, of Bradford. *Madresfield*, near Malvern, Worcestershire; of grey stone, with bands of brick and freestone dressings; consists of nave and chancel with tower and spire, six bells and a set of chimes; architect, Mr. Preedy. *Melton*, near Woodbridge, Suffolk; of Kentish rag with Bath stone dressings; consists of nave and north aisle, chancel, and tower and spire 100 feet high; architect, Mr. F. Barnes, of Ipswich. St. James's, *Stockton-on-Tees*;

nave and aisles, chancel, and tower and spire at the south-west, 130 feet high; 560 sittings; cost 4,800*l.*; architect, Mr. J. P. Pritchett, of Darlington. *Gretton*, Northamptonshire; rebuilt of stone; consists of nave, chancel and south aisle, with tower and spire 100 feet high; architect, Mr. J. D. Wyatt. *Limbury*, Bedfordshire; at the cost of Mr. J. S. Crawley; of brick and stone; consists of nave, chancel, and north chancel aisle; architect, Mr. T. Nicholson, of Hereford. St. George's, *Worthing*; of brick and stone; architect, Mr. G. Truefitt. *Llandysilio*, Montgomeryshire; of stone; consists of nave, chancel, and north aisle; 300 sittings; cost 2,220*l.*; architect, Mr. J. Potter, of Welshpool. St. Matthew's, *Leyburn*, Yorkshire; nave, north aisle, chancel, and tower at the west 65 feet high; 350 sittings; architect, Mr. C. G. Wray. *Churchill*, Worcestershire; on the site of the old parish church; of red sandstone; 120 sittings; cost 1,800*l.*; architect, Mr. W. J. Hopkins.

Only sparely does a wayward example turn up in any other style. One such is St. Paul's, Hooton, Cheshire, designed by Mr. J. K. Colling, and erected by R. C. Naylor, Esq., just within his park-gates at Hooton Hall. The church is Norman in style, and the architect has gone to Normandy for form and details. It is a cruciform building, with short transepts and a semi-circular apse, and ambulatory at the east. From the intersection of the cross rises an octagonal lantern tower and short stone spires; but internally the intersection is covered by a stone cupola with pendentives, but opening to the lantern. A porch and bell-turret, surmounted by a statue of St. Paul, is connected by a short cloister with the south side of the chancel. Altogether the church is decidedly picturesque, but its adaptation to the site is open to question. At Thorncombe, Dorset, a new church has been erected from the designs of Mr. J. M. Allen, of Crewkerne, on the site of the old church, and, like that, Third Pointed in style. At Winterbourne, Wiltshire, the church of St. Michael and All Angels, designed by Mr. T. H. Wyatt, is likewise, partially at least, Third Pointed in style, but this was also due to its having taken the place of an old church.

The work of restoration is proceeding steadily in our cathedrals. At Gloucester, the south transept has been completely restored under the direction of Mr. G. G. Scott, R.A. The chapel of St. Andrew has had the exterior renewed, and the interior decorated by Mr. Gambier Parry, and painted glass windows, by Hardman, inserted as a memorial of Mrs. Marling. The neighbouring chapel has been restored as a memorial of Sir William Codrington, Bart., and the transept windows have been filled with painted glass. In the north transept, the chapel of St. Paul has been restored at the cost of the Earl of Ellenborough. The reredos has been renovated and painted glass has been inserted in the cloister. At Worcester, a splendid reredos, designed by Mr. G. G. Scott, R.A., and executed by Mr. Farmer, has been erected. At Ely, where so much has been done in the way of both constructional and decorative restoration, it having been found that the foundations of some of the choir buttresses were unsound, and that consequently cracks were showing themselves in the groining, the Dean and Chapter, acting on the advice of Mr. Scott, have decided not only to make good the

whole of the foundations, but to restore the buttresses throughout and rebuild the flying buttresses. At Bristol, Mr. Street is constructing a new nave which will extend 117 feet from the transept tower, be about 80 feet wide, and have a triforium corresponding to that in the existing building. The west front will be of an ornamental character, with towers on the south and north, 130 feet high. At Manchester the new tower has been completed, the lower part now forming the principal entrance to the cathedral. Chester cathedral, the mouldering surface and melancholy aspect of which are hardly likely to be forgotten by the visitor, was, upon examination by Mr. Scott, found to be in a more unsafe condition than was suspected. According to his estimate, 50,000*l.* would be required for the necessary repairs and desirable restorations. A county meeting was therefore called and the assistance of the Ecclesiastical Commissioners invoked, with the result that a sufficient sum was guaranteed, and the work of reparation and renovation are now in progress. The picturesque and æsthetic character of the cathedral is doomed, but the building itself is secured.

We may just notice that the works at the metropolitan cathedrals proceed slowly but continuously. At St. Paul's, little progress is visible, though some has been made. At Westminster it is more evident, and the choir with its new reredos is beginning to look much brighter and more orthodox. The restoration of the Chapter House is proceeding vigorously, and, whilst all that can be saved of the old building will be religiously preserved, the new work promises to be very effective. One of the new flying buttresses seems to us likely to cut awkwardly against the cathedral by Poet's Corner, but we suppose it was inevitable. We may hope that the removal of the mean houses there will not now be much longer delayed.

Respecting the restorations of parish churches, it will suffice to say that the passion seems to grow with that it feeds on. No part of England has escaped the blight of restoration, and where you see a solitary church as yet untouched, you feel sure that its fate has only been deferred awhile that it may be preyed on more at leisure. However, those who use the churches have the comfort that the buildings which have gone through the ordeal are tolerably secure from future attacks, and that they have been rendered more fit for future service by the process.

Nothing very remarkable in the way of church building has to be recorded of the Roman Catholics this year. About London, one or two of the older buildings have been added to and new ones carried a stage further. In the High-street, Kensington, a new church of St. Mary has been erected. It is a heavy-looking example of late First Pointed Gothic, with tracery in the great west window of the most mechanical description. The chief reliance for external effect seems to be on the doorway, which is very deeply recessed, divided by a central shaft, and decorated with a Majesty in the tympanum. The interior will also be richly embellished, especially the sanctuary and about the high altar. A thin but not graceful *flèche* rises to a height of 120 feet. Behind the church are priests' houses. One of the oddest changes (architecturally) about London is the conversion of the once well-known Burford's Panorama, Leicester-square, into a

chapel, and the mode by which it has been effected is as curious as the circumstance. Within the walls of the old rotunda a cruciform church has been constructed of a framework of cast iron ribs, filled in with brickwork. The architect (who claims to be the inventor of the system) is M. Boileau; the church is for a French congregation and dedicated to Nôtre-Dame de Paris.

In the Alma-road, Windsor, the new church of St. Edward the Confessor has been opened, though only partially completed. The building appears to be more English in character than the poor creature to whom it is dedicated. When finished, it will be a cruciform edifice, with a tower and spire at the north-west, very rich in the interior, and First Pointed in style; the architect is Mr. C. A. Buckler. Mr. Hansom's church at Bath, described by us three or four years back, has been completed by the addition of a tower and spire 200 feet high. At Barton-upon-Irwell, the church of All Saints has been erected at the cost of Sir H. de Trafford, from the designs of Mr. E. W. Pugin. The building is large, First Pointed in style, constructed of Stourton freestone with dressings of Yorkshire perpoint stone, and is richly decorated in the interior with coloured marbles, especially the chancel, altar and reredos.

Roman Catholic churches and chapels have also been erected at *Bootle*, Lancashire, St. Alexander's; an elegant and well-finished First Pointed building; designed by Mr. E. W. Pugin. St. Mary, *Fleetwood-on-Wyre*, Lancashire, also by Mr. Pugin, consists of nave, aisles, and apsidal chancel, but waits for completion by the addition of a tower and spire. St. Hilda's, *Whitby*, Yorkshire; First Pointed in style; architects, Messrs. Hadfield, of Sheffield. *Chester*, from the designs of Mr. F. Kirby, of Liverpool. St. Charles (of Milan), *Attercliffe*, Yorkshire; Gothic; 400 sittings; cost about 4,700*l.*; architects, Messrs. Innocent and Brown. St. Joseph and St. Francis Xavier, *Richmond*, Yorkshire; consists of nave, aisles, and chancel; has 500 sittings; and cost 3,000*l.*; architect, Mr. S. Goldie. St. Bees, *Whitehaven*; is an early Second Pointed building; consisting of nave with clerestorey and aisles, apsidal chancel with side chapels, and Lady chapel. The interior is rather richly decorated, and painted glass has been inserted in the east windows; the architect was Mr. E. W. Pugin. The church forms part of a proposed priory and convent.

The Dissenting churches do not offer much novelty; and either there is some abatement in building among the sects, or their proceedings are less fully reported than usual. The Congregational church at Barbican being required for the City Extension of the Metropolitan Railway, the congregation have built themselves a new church in the New North-road, Hoxton, rather showy, but by no means unobjectionable in many respects. The church is above 100 feet long by about 40 wide, and of course occupies what is called the ground-floor, but under this not only is there a large lecture-room, but two infant school-rooms, and two rooms for elder scholars have been constructed, a pernicious practice, which we hoped had been everywhere abandoned. The building is early Second Pointed in style, is constructed of Kentish rag, with Bath

stone dressings, and has some good carving. Iron columns support the galleries, but are not carried higher, the roof springing from corbels and wall-plates. It has about 900 seats, and cost about 6,000*l.*; the architects were Messrs. Lander and Bedells. In Approach-road, Victoria Park, a new Gothic chapel is approaching completion, from the designs of Mr. Poulton, of Reading. It will not be remarkable for architectural character, but it is intended, it is said, to accommodate a congregation of 3,000. At Lewisham a spacious new chapel has been erected of Kentish rag, with Bath stone dressings, and some architectural pretension. It is Second Pointed in style, 125 feet long, half as wide, and 46 feet high, and has a tower and spire nearly 170 feet high. It has seats for 1,100 persons, and has good warming and ventilating arrangements—matters more attended to in the better class of dissenting chapels than in churches of the establishment.

Other Congregational chapels have been built at *Bollington*, Cheshire; early Second Pointed in style; of Cheshire perpoint stone, with Bollington stone dressings; 460 sittings; cost 2,800*l.*; architect, Mr. Williamson of Manchester. *Malmesbury*, Wiltshire; modified Lombardic in style; of local stone, with Bath stone dressings; architect, Mr. W. J. Stent of Warminster. *Blandford*, Dorsetshire; late First Pointed in style; architect, Mr. Stent of Warminster. *Whitby*, Yorkshire; 950 sittings; cost 4,000*l.*; architect, Mr. J. P. Pritchett. Trinity Church, *Huntingdon*, on the site of the old Dolphin Yard; an elaborately ornamented early Second Pointed building, with tower and spire 190 feet high; 720 sittings; cost about 8,000*l.* *Hythe;* Gothic in style; of stone; cost 1,925*l.*; architect, Mr. J. Gardner of Folkstone. *Buttershaw*, near Bradford, Yorkshire; early Second Pointed in style; has nave and chancel, with end gallery, and a tower and spire 90 feet high; architect, Mr. J. P. Pritchett, of Darlington. Gloucester-road, *Ross*, in place of the old chapel in Kyrle-street; Second Pointed in style; with projecting porch, apsidal end, and roof of very high pitch; designed by Mr. B. Lawrence, of Newport.

The Baptists have seemingly added few to their list of churches. Priory-street Chapel, Micklegate, York, has been opened. It is a cruciform building, early Second Pointed in style, not altogether orthodox or ecclesiological in details or arrangements, but convenient for seeing and hearing, and having a tower with pinnacles 60 feet high. It has 700 seats, cost about 4,000*l.*, and was designed by Mr. W. Peachey, of Darlington. In the White Ladies'-road, Clifton, a new chapel of rather ornamental character has been erected from the designs of Mr. S. Hancorn. It is cruciform in plan, and Second Pointed in style, and has vestibule, open porches, large baptistery under the chancel, ladies' vestries, &c., and has cost nearly 8,000*l.*, the tower being left for completion at a future time. Baptist chapels have also been erected, among other places at Henley, Warwickshire, on the site of a previous chapel, Gothic in style, 200 sittings; architect, Mr. G. Ingall; at Kidderminster, Gothic in style, 600 sittings, cost 2,400*l.*, architect, Mr. Bidlake, of Wolverhampton; and one or two other places.

The Wesleyan Methodists have a carefully arranged system of

chapel extension, which is carried out by a committee, under the direction of the Conference. At the meeting in August, 1868, the committee reported that during the year, the erection had been sanctioned of 126 chapels, affording accommodation for 37,338 persons, at an estimated cost of 125,000*l.* Of these, 48 were to supersede former chapels, and 78 were to be built where there had been hitherto no Wesleyan Methodist chapel. In addition to the new chapels, there were 74 enlargements and alterations sanctioned, at an estimated cost of nearly 25,000*l.*, and 72 "modifications" at a cost of 21,536*l.* As far as we have noticed, none of the new chapels present any architectural features calling for particular notice. Among other places, chapels have been built at *Balby*, Yorkshire; semi-classic in style; of brick and stone; 250 sittings; cost 1,000*l.*; architect, Mr. W. Watson, of Wakefield. At *Wesley Place;* Italian in style; from the design of Messrs. Lockwood and Mawson, of Bradford; in the place of an old chapel. At Chequer's-alley, *Bunhill Fields*; a plain brick building; designed for a very poor neighbourhood by Mr. J. Hoole; schools are attached. *Lewes*, Sussex; of brick and stone; 525 sittings; cost 1,400*l.*; architects, Messrs. Pocock. *Maindee*, near Newport; 300 sittings; cost 1,247*l.*; architect, Mr. S. Hancorn of Newport. *Burslem*, Staffordshire; Italian in style; 350 sittings; cost 900*l.*; architects, Messrs. Scrivener, of Hanley. *Newcastle;* 260 sittings; cost 700*l.*; architect, Mr. S. Oswald. *Chipping-Norton*, Oxfordshire; Italian in style; 500 sittings; architect, Mr. W. Peachey, of Darlington. *Bloxham*, Oxfordshire; Gothic in style; of brick, with Bath stone dressings; 300 sittings; architect, Mr. T. Garrett of Banbury. *Stockport;* of brick and stone, with a Corinthian portico of four columns; 900 sittings; architect, Mr. W. Hill of Leeds. *Lindley*, Yorkshire; First Pointed in style; of stone; 550 sittings; cost about 3,600*l.*; architect, Mr. G. Woodhouse, of Bolton. *Braintree;* First Pointed in style; of brick, with Bath stone dressings; 376 sittings; cost 1,400*l.*; architect, Mr. F. Barnes, of Ipswich.

The New Connexion Methodists have built chapels at Newcastle-upon-Tyne (from the designs of Mr. S. Oswald), and elsewhere. The United Methodists at Parkgate, near Rotherham, Yorkshire, a handsome First Pointed building, with a tower and spire, designed by Mr. Mitchell-Withers, at Liverpool, &c. The Free Methodists, at Middlesborough, a Gothic building designed by Mr. Hunter; at Gainsborough, a chapel designed by Mr. T. Lister, and in various other places.

The Presbyterians, the United Presbyterians, and, in Liverpool, the Welsh Presbyterians have built chapels displaying more or less attention to style; but none that represent any advance in ecclesiastical architecture, or any marked change in denominational notions on the subject, though in most there is shown a growing desire for ornament, whilst among almost all sects, the objection to the use of the cross and the introduction of the organ, seems to be dying out. The Unitarians at Bradford, the Free Christian Church at Calne, the Countess of Huntingdon's Connection at Tunbridge Wells, Lutherans at North Shields, and Moravians at Shipley, have likewise built themselves chapels

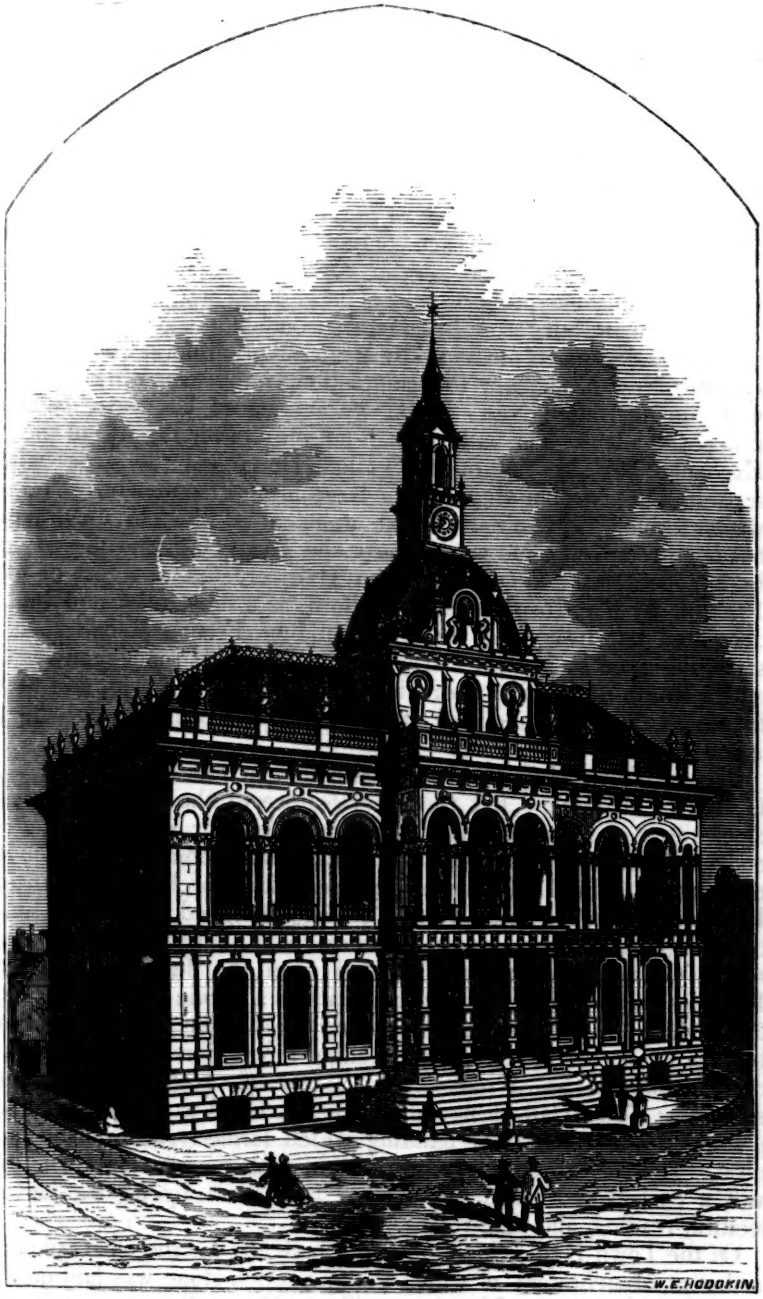
of some elegance; but it would be mere iteration to go on with the list—enough has been told to illustrate what is being done.

A line, however, may be added to note the opening of a Jewish synagogue for the North London district, in Thornhill-road, Barnsbury. It is a moderate sized, but carefully finished building, 65 feet long, 45 feet wide and 35 feet high, divided into three bays, and has an octagonal coffered ceiling. The style is modified Italian, the chief embellishment being reserved for the interior, and culminating in the east end, where is the niche for the ark. The architect was Mr. H. H. Collins. A synagogue by the same architect is also being built in the High-street, Rochester, at the cost of Mr. S. Magnus.

4. Buildings for Public Purposes.

Several municipal and other buildings of a public character have been erected during the year, some of them of considerable architectural importance. Beginning with the Town Halls, we may notice first that of Ipswich, as it is admittedly the finest building of its class which has been erected in the eastern counties. The engraving (No. 2) which is taken from a photograph, for which we are indebted to the courtesy of the architect, will show its form and general character more clearly than any description. As will be seen, the building is Italian Renaissance in style, the type Venetian, of two orders on a rusticated basement; the ground-floor having banded Tuscan, the principal storey, Corinthian columns; the façade being crowned by a bold cantilever cornice and balustrade with vases. The centre is carried forward so as to form a portico entrance with an open arcade in the principal storey, and rises upwards into a dome and clock turret, terminating in a lantern spirelet. In front of the arcade are balconies from which speakers may address audiences at elections and on other public occasions. The statues on the pilasters of the centre balustrade represent Justice, Learning, Commerce, and Agriculture. Crowning the façade are the borough arms in high relief, whilst various emblematic carvings are freely introduced at the angles of the building, on the imposts, keystones, and wherever they could be properly employed. The building is of stone, polished granite and coloured stone being used to add to the general effect. The interior provides apartments for the various municipal officers, a sessions court, and magistrate's rooms, which are said to be commodious and well adapted to their purpose. On the principal storey, which is reached by a grand staircase 24 ft. wide, is the Council Chamber, a handsome room, 74 ft. long, 31 ft. wide and 24 ft. high, occupying the whole length of the principal front, and richly decorated, it being intended to serve for banquets and balls as well as business purposes. Adjoining it is the library 40 ft. long, and of the same width and height as the Council Chamber. The building, apart from the site, cost about 16,000*l.*; the architects were Messrs. Bellamy and Hardy of Ipswich.

More important in size and as a building, however, is the structure called the Municipal Offices, Liverpool, which in magnitude falls little short of St. George's Hall, and has cost over 100,000*l.* Its purpose is



No. 2.—Town Hall, Ipswich.

to concentrate the various municipal offices in one central building. It is a large quadrangular edifice, having the principal front in Dale-street, 226 ft. long, with a depth of 195 ft. The style is semi-classic; the order resembles Roman-Corinthian; but instead of acanthus leaves the capitals have fronds of English ferns. A central clock-tower and spire, about 200 ft. high, and pavilion roofs, are Renaissance features. The principal front has, however, an imposing appearance. Twenty attached columns of polished granite occupy the spaces between the windows and support a bold cornice. The upper storey is an attic with single statues, emblematic of the Arts, Science, and Commerce, on a broken entablature over each column, and groups of statuary at the angles of the tower. The interior contains above a hundred rooms, some of handsome proportions. The building was designed by Mr. J. Weightman, but, after his death, its erection was superintended, and the design much modified, by Mr. E. R. Robson. The still more spacious New Exchange, the completion of the west wing of which, with the unrivalled News Room, we announced last year, is being proceeded with. The building will not only cover the site of the old Exchange but also that of the Sessions House and the street which separated the two buildings. The large bronze monument of Nelson, which formed the familiar central ornament of the old quadrangle, has been removed some yards nearer the Town Hall, and placed on a higher pedestal. Pendleton Town Hall, erected at a cost of over 10,000*l.* by the Corporation of Salford, is a substantial and highly decorated but heavy and inelegant building, French Renaissance in style, designed by Mr. A. Darbyshire. The great room occupies the entire length of the first floor; is 85 ft. long, 39 ft. wide, and 29 ft. high, and is richly decorated, its chief purpose being to serve as an assembly room.

A new Town Hall has been completed at Smethwick, Venetian-Gothic in character; but the chief feature of the exterior, a lofty clock-tower over the principal entrance, is left for erection at a more convenient season. The great hall, a handsome room, 75 ft. by 50 ft., contains seats for 1,000 persons, besides a large orchestra. Runcorn Public Hall is a red brick Gothic edifice, designed by Mr. Culshaw of Liverpool, and contains an assembly room with seats for 800 persons. Guiseley Town Hall, erected from the designs of Messrs. Knowles and Wilcock of Bradford, contains a public room 65 ft. long, 36 ft. wide and 27 feet high, providing seats for an audience of 800, besides an orchestra; a public reading-room, library, school-room, class-rooms and board rooms. At Ringwood, Hampshire, a handsome new Town Hall, designed by Mr. T. H. Wyatt, has taken the place of the old and dirty building which formerly served the purpose. It is of brick, three storeys high, with round-arched windows and a curbed roof; contains a great hall 72 ft. by 37 ft., justice, lecture, reading, and club-rooms.

Of the Town Halls which are being built, by far the most splendid is that at Manchester; of which the foundation-stone was laid on the 26th of October last. Manchester Town Hall will be a magnificent Gothic structure, estimated to cost a quarter of a million, and will, we may hope, prove a worthy rival of the Manchester Assize Courts,

designed by the same architect, Mr. A. Waterhouse. A spacious Royal Exchange is also being erected at Manchester, from the designs of Messrs. Mills and Murgatroyd. Town Halls have been commenced at Gateshead, an Italian building, designed by Mr. J. Johnstone; at Grantham, from the designs of Mr. Watkins; at Truro, a long range of buildings, to contain the county library, for various public purposes; and at Sheerness, a Public Hall.

At the busy new town of Middlesborough a large Exchange has been erected from the designs of Mr. C. J. Adams of Stockton-upon-Tees. The building is a parallelogram of about 200 ft. by 130 ft.; is three storeys high, the ground-floor being shops and offices, with a mezzanine storey over, and is constructed of brick with stone and terra-cotta capitals, mouldings, and dressings. The style is Italian, the principal features being the angle towers, which have finials at the angles, with statues on plinths between them, and pavilion roofs, and a lofty clock-tower at the centre of the west façade. The Exchange Hall, the great feature of the interior, and in which the weekly iron market for the district will be held, is a noble room, 120 ft. by 60 ft., with a semi-circular end, 20 ft. deep, covered by a semi-circular panelled ceiling. Around the hall are offices; in the angle towers are dining, reading, and billiard rooms, each 34 ft. square. The east end of the building forms a club-house.

A spacious Corn Exchange has been erected at York, from the designs of Mr. G. A. Dean. No great display is made externally, the front being a range of warehouses, but the great room is light, well-proportioned, and pleasing. It is 74 ft. long and 63 ft. wide, with an open timber roof, borne on iron columns, having along the centre a glazed lantern, 54 ft. to the apex. Dorchester Corn Exchange, behind the Town Hall, is a plain brick building externally, but the exchange is a handsome room 80 ft. by 40 ft., and 40 ft. high; the architect was Mr. Hall. A Corn Exchange, the great room of which is intended to serve for assemblies as well as for a corn-mart, has been erected at Evesham, from the designs of Mr. H. Workman. Others are in progress. At Walsall, an Agricultural Hall, designed by Mr. Nicholas, will contain the great room, 80 ft. by 50 ft., which is intended to serve also as an assembly room, or for dramatic purposes. At Luton, a Corn Exchange, by Messrs. Massenger and Grundy, a Venetian-Gothic building, is being built on the site of the old Town Hall; also a Straw Exchange in Cheapside.

At Accrington, a covered Market House of convenient plan and with some novelty in the arrangements, has been erected, from the designs of Mr. J. F. Doyle. The exterior is of local white stone, on a basement of blue Warrenden stone; the interior walls being lined with glazed bricks. The roof is of iron; the lighting is effected by splayed clerestoreys. A covered Market House has been opened at Matlock Bridge. The building is externally a plain structure of Derbyshire grit, but forming part of it is a handsome assembly room; the architect was Mr. Hull of Northampton. At Penrith, a Market House has been erected from the designs of Mr. Stewart of Carlisle, which is intended also to furnish a great room for meetings and concerts. The roof of iron and glass is borne on iron columns. The

large area of the market-place, Bury, Lancashire, has been covered with a roof of wrought iron and glass, in three divisions, the centre of 60 ft., the sides each of 50 ft. span. At Southampton, a new Cattle Market has been formed near the Dock station of the South Western Railway, under the direction of Mr. J. Lemon, the borough surveyor. It has an area of about an acre, but capable of extension to four acres; has stalls and pens of wrought iron for 230 cattle, 1,180 sheep, and 500 pigs. The floor is of concrete and Portland cement, the drainage good, and the arrangements generally well considered.

Unusual attention was drawn to the new Infirmary at Leeds, from its having been inaugurated with great ceremony by the Prince of Wales, May 19, 1868, and the Leeds Art Treasures Exhibition having subsequently been held within it. But the building would hardly have failed to attract attention on its own account. It is the most splendid hospital that has been built for many years, and will take rank among Mr. G. G. Scott's principal works. It is constructed on what is called the pavilion or block system, and consists of a series of detached buildings connected by corridors, with a central court, 150 ft. long and 65 ft. wide. This court is covered with an ornamental iron and glass roof 60 ft. high, supported on iron columns, and is to form a winter garden for convalescents. In style the building is First Pointed of a French character, the roofs high and spiry. It is constructed of coloured bricks in courses, with stone shafts and dressings, and presents a striking and picturesque appearance, the irregularity which perhaps the architect would not in any case have sought to avoid, being in part necessitated, and certainly increased, by the peculiarity of the site. There are five separate pavilions, two storeys high, with a ward on each floor, those on the south being 122 ft. long, those on the north 112 ft., the width of both being 27 ft., the height 16 ft. and 20 ft. There are besides, the various connected buildings and offices, baths, lavatories, hydraulic lifts, and all improved hospital arrangements. The south is the principal front, the chapel is on the east. The cost has exceeded 100,000*l*. Near the Infirmary a rather picturesque Gothic building has been erected, from the designs of Mr. G. Corson, for the Leeds School of Medicine: it contains lecture and dissecting rooms, museums, laboratory, and other essentials to a medical school.

The new North Staffordshire Infirmary, at Hartshill, near Stoke-upon-Trent, of which the Prince of Wales laid the first stone in June, 1866, was opened in October last. It is built on the pavilion system; the wards, which are spacious, light and well ventilated, contain 167 beds. A fever hospital forms an entirely detached block, and another detached block is a hospital for incurables. The building, exclusive of the site, cost nearly 30,000*l*.; it was designed by Messrs. Barlow and Lynam. The Doncaster Infirmary and General Dispensary contains five wards, and has been constructed with especial regard to securing the best possible sanitary provision for the patients. At Sunderland a new Infirmary has been opened; the buildings, which occupy an area of 1,500 square yards, have been carefully planned, and are provided with the most approved appliances. The Bristol Infirmary has been enlarged and improved, and two new separate

wards erected in the rear, under the superintendence of Messrs. Pope and Bindon. A new wing has been added to the Royal South Hants Infirmary, Southampton, from the designs of Mr. R. Critchlow, the cost being detrayed by Mrs. E. Crabbe.

Foundation stones have been laid of several new hospitals. The new Southern Hospital, Caryl-street, Liverpool, will have a frontage of 300 ft., and a depth of 180 ft.; will consist of a centre and two end blocks connected by corridors, and will provide room for 200 beds. The architect is Mr. Culshaw. St. Leonard's Hospital, Sudbury, is being erected under the superintendence of Mr. E. Salter. The Hospital for Sick Children, Deansgate, Manchester, designed by Messrs. Mills and Murgatroyd, will be a mediæval building of brick and stone, covering an area of 530 square yards. At Huddersfield, a spacious Convalescent Home has been commenced from the designs of Messrs. Kirk, Domestic Gothic in style, and to be provided with every desirable accommodation; its foundation being due to the munificence of Mr. C. Brook, junr., of Meltham Mills, who has given the sum of 30,000*l.* for the purpose.

The Institution for the Blind, North Parade, Huddersfield, opened in June, is intended for the instruction and employment of poor blind persons of both sexes. It is a plain Gothic building, designed by Messrs. Knowles and Wilcock, four storeys high, the ground floor containing shops for the sale of the articles made in the institution, libraries and residences; in the upper storeys are large and convenient work-rooms.

A House of Mercy for the reception and protection of thirty fallen women has been erected at Great Maplestead, Essex, at the cost of Miss Elizabeth Barter, who has added an endowment of 250*l.* a year towards its maintenance. The building forms a quadrangle, with a chapel on one side and an infirmary on the other, while a cloister carried round the quadrangle gives a covered way of access to all parts of the building. The upper rooms are dormitories. The building is First Pointed in character, of red brick with stone dressing, the chief architectural feature being the chapel. The architect is Mr. H. Woodyer, who has designed so many buildings of this class. The Devon House of Mercy, erected from his designs at Bovey Tracey, near Exeter, has been some months opened. It is a parallelogram, with two principal wings, is built of granite and Bath stone, and is characterized by simplicity approaching severity of style, the only portion on which ornament has been expended being the chapel, a lofty First Pointed edifice with a polygonal apse, and a rich reredos of alabaster and marble. Accommodation is provided for seventy-two inmates and eight sisters.

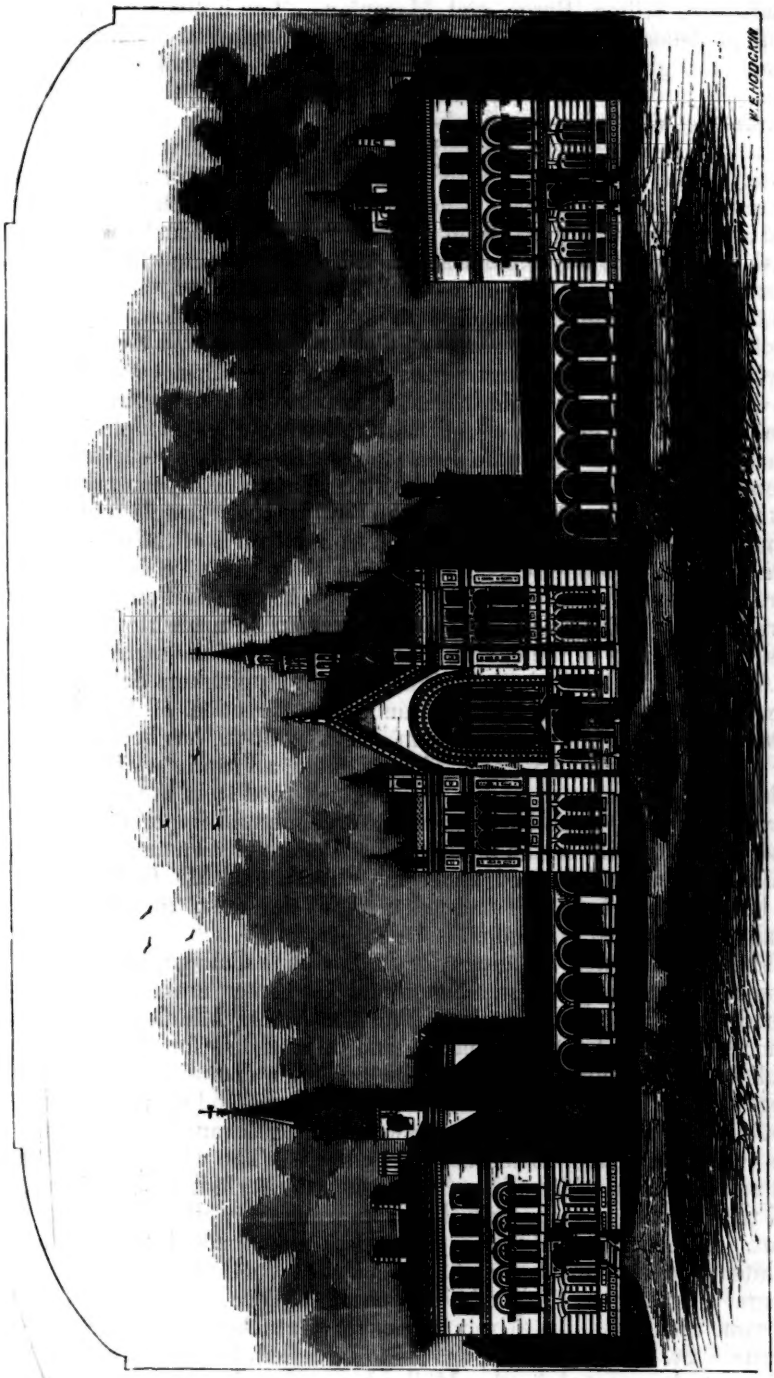
The first portion of the Alexandra Orphanage, Hornsey Rise, is nearly completed. It consists of a series of eight detached cottages arranged about a quadrangle, with central buildings, in which are the great dining-hall, matron's house, and offices. Eventually there are to be sixteen cottages, with accommodation for 400 infant orphans. The buildings are of red brick with stone dressings, in what is termed the Domestic Gothic style, but varying considerably in character, and rather quaint than elegant when regarded apart or as a whole. The

architects were Messrs. Habershon and Pite. The site chosen is high and healthy, but it is to be regretted that a larger area was not secured. When purchased, the site was in the midst of open green fields, but already buildings are closely surrounding the too-confined grounds.

5. Buildings connected with Education, Art, &c.

The new buildings for the schools of Dulwich College are the most important of their class which have been erected for many years in the neighbourhood of London, and are of so much interest in connection with the subject of education for the middle classes of the metropolis that, though not yet completed, we have selected them for engraving (No. 3).

The site of the new schools is by Dulwich Common, about a quarter of a mile south of the College. About forty-five acres of land have been secured, of which twenty-five acres are appropriated to the school buildings, playgrounds, and playfields, and twenty acres reserved for the erection of boarding-houses or other school purposes. The new buildings are intended to provide accommodation for 700 boys, in two schools of equal size. Their general character will be seen from the engraving. They consist of three separate blocks, a centre building and two side buildings, or wings, connected with the centre building by cloisters. The centre building contains the public and official rooms, those used for general gatherings and for purposes common to both schools; the large entrance-hall, lecture theatre, laboratory, and servants' rooms being on the ground floor, the centre hall occupying the entire depth of the first storey, while the large front rooms on the right and left of it are the library and board-room. The south wing, that on the left in the engraving, is the upper school, the front portion being the residence of the under-master; the rest of the block, a depth of 90 feet, forming the school proper. The north wing, which exactly corresponds to the south wing in its arrangements, is the lower school, the front being the master's residence. The general arrangement seems clear and simple, but how far it is adapted for the requirements of a school like Dulwich, it would require some familiarity with the working of the school, and a more careful examination of the rooms than is at present practicable, to say. The exterior of the building is, however, so nearly completed that there need be no hesitation in speaking of its architectural character. The style the architect himself describes as Northern Italian of the 13th century. As will be seen from the engraving, though its small size prevents the details being given, the building is unusually rich in ornament. The walls are of red brick, the decorative features almost exclusively of terra-cotta, which is here employed more profusely than on any important building yet erected in England. The principal front of the centre building is most elaborately ornamented, but the buildings are highly enriched on all sides. A distinctive and appropriate decoration is a series of heads, in very high relief from concave circular shields, of eminent poets, philosophers, historians, and scholars, from Homer and Herodotus, Plato, Demosthenes, Cicero, and Virgil, down to Dante and our own



No. 3.—Dulwich College Schools.

Shakspere, Milton, Byron, and Macaulay. The heads are generally well modelled, and the sensible plan has been adopted of placing the name (though not obtrusively) against each. As a whole, the edifice must be pronounced both effective and pleasing; the terra-cotta harmonizes well with the brick-work, and, though so abundant, the ornament is sufficiently subordinate, and introduced with excellent taste. Whether instead of so costly and elaborately-decorated a structure, it might not have been better to expend less on the building and appropriate a larger sum in extending the educational advantages of the foundation, is another matter. That the building will be a very costly one is clear. The mere shell has cost 62,000*l*., and at least 10,000*l*. more will be required to fit it for occupation. But the College will have obtained a very beautiful building, and the building itself will be a means of instruction. Such a building would indeed be dearly purchased should it lead, as is rumoured, to the increase of the school fees, and its perversion, following the example of the Charterhouse, to a mere school for the wealthy. The reservation of ground for boarding-houses, and the statement made, apparently with authority, that after providing for the foundations, "ample room will remain in the new schools for scholars from all parts of the country as in all our other public schools," seem to point this way, but one can hardly believe that in these days so flagrant an addition could be permitted by Public School Commissioners to be made to the list of misappropriations of the educational endowments of the metropolis.

Additional buildings have been erected for Uppingham School, and the chapel enlarged and altered under the direction of Mr. G. E. Street, A.R.A. A new school-room, 60 ft. by 30 ft., has been erected for Dedham Grammar School. At Brighton, a Proprietary Grammar School has been erected in the Buckingham-road from the designs of Mr. Nunn; but the buildings are of no architectural importance. Of a higher order will be the building for Doncaster Grammar School, which is being constructed under the direction of Mr. G. G. Scott. A building has been commenced outside the town for the Free Grammar School at Abingdon.

The extensive new buildings for St. Saviour's College, Ardingley, Sussex, designed by Messrs. Slater and Carpenter are nearly completed. Ardingley College is to form the Lower Middle School in connection with Lancing College, and is intended for the sons of small tradesmen and artizans. The buildings comprise two quadrangles, in which are masters' houses, class rooms, and dormitories for 1,000 boys; the cross building between the quadrangles containing the two great school-rooms and the chapel. The whole is built of red brick with dressings of local sandstone, the style is First Pointed, and the buildings are conventual in appearance as well as in arrangement. Considerable additions have also been made by the same architects to the buildings at Lancing College. Buildings similar in general character to those of St. Saviour's College, and designed by the same architects, have been commenced at Denstone, near Ashbourne. St. Chad's College, as it is to be called, is the first of three colleges to be erected in the Midland counties, in connection with Lancing College, and will provide accommodation for 400 middle class

boys. A neat little building has been erected in the village of Cowlinge, Suffolk, by Sir R. and Lady Pigot, as a college-school for providing a superior education for farmers' sons along with more elementary training for the children of labourers.

The New Buildings, Balliol College, Oxford, forming the south front of the college, are making rapid progress under the direction of Mr. A. Waterhouse, and promise to be richer and more satisfactory in their general effect than the adjoining New Buildings erected about 15 years ago by Mr. Salvin. The buildings are of course Gothic, but the architect has allowed himself a good deal of freedom of handling, and has impressed more of distinctive character upon his work than is seen in most of the new buildings at Oxford. The buildings will cost about 30,000*l.*, and are a gift to the College from Miss Brackenbury, the daughter of an old scholar. The New Buildings, Christ Church, facing the Broad Walk, the last completed, show a considerable mixture of Gothic forms, though the predominant feeling may perhaps be described as Venetian. The structure is of Bath stone, with brick bands; 350 ft. long, and 37 ft. deep; has a tower with stepped gable-roof 80 ft. high; cost 22,000*l.*, and was designed by Mr. T. N. Deane. The foundation-stone of Keble College was laid on the 25th of April last. The site is a little north of the Museum; the building is to be of coloured bricks with stone dressings, the style early Second Pointed; the cost about 50,000*l.*; the architect is Mr. Butterfield.

A new Congregational Theological College has been erected in Forest-road, Nottingham, from the designs of Mr. R. C. Sutton. It is an early Second Pointed building of red brick with bands of black brick and stone dressings. The principal feature of the interior is the great hall, 60 ft. by 30 ft., with an open timber roof. A new wing has been added to the Wesleyan Training College, Horseferry-road, Westminster. It is Gothic in character; of brick and stone; cost 7,000*l.*, and was designed by Messrs. Wilson and Willcox. New buildings, designed by Messrs. Lander and Bedells, are in progress at Cheshunt College. Owens College, Manchester, is to be extended and in a measure re-modelled, and a new building on a scale of considerable magnitude is proposed to be built for it in Oxford-street.

Mechanics' Institutes have been erected at Crook, Durham; at Newcastle, and elsewhere. At Monmouth a Free Institute for Working Men has been founded and endowed by Mrs. M. Jones of Ancre Hill: the building, designed by Mr. B. Lawrence, is a handsome and convenient Italian Gothic structure. Workmen's Halls have also been erected at Sunderland, at Hitchin, and one or two other places. The ceramic decorations of the Wedgwood Institute, Burslem, have caused delays in the completion of the building, but it is expected to be ready for formal inauguration at Easter.

Her Majesty's Theatre, the best for hearing, and in many respects the pleasantest, of all our London theatres was destroyed by fire on the night of the 6th of December, 1867. Another is rising rapidly to take its place, but it can hardly be expected to be an efficient substitute.

The Standard Theatre, Shoreditch, erected on the site of that

destroyed by fire in October 1866, was opened about Christmas, 1867. It is even larger then its predecessor, and is better for seeing and hearing in. It is of brick, with no architectural character externally. The interior is of the accustomed horse-shoe form; it has four tiers of boxes, receding as they rise, side boxes, and an immense gallery, forming the fifth tier; the auditory, it is said, can seat nearly 5,000 persons. The ceiling is a low-pitched dome 70 feet in diameter, having in the centre, which is 84 feet above the floor, a powerful sun-burner, which lights the immense area perfectly. The proscenium is 44 feet wide; the stage is 70 feet deep from the footlights. The decorations are of the usual raised gilt Renaissance scroll work on a white ground, the back of the boxes being crimson; and the proscenium gilt, so as to form a massive frame to the stage. Altogether the house is a very favourable example of an East-end theatre. The means of egress seem to be skilfully arranged, considering the difficulties of the site. Two other new theatres are approaching completion in London. The New Globe, Newcastle-street, Strand, which will have been opened before this volume is published, has been constructed rapidly on a portion of the site of the abortive Strand Hotel. The Gaiety is being constructed, partly on the foundations of the Strand Music Hall, but will extend farther than that unlucky building. It may be thought needless to repeat the hope that provision has been, or will be made against fire, and for sufficient and ready egress in case of panic, but the Queen's Theatre and the Holborn Amphitheatre are proofs that these matters are still treated too lightly, and what occurred at the Manchester Music Hall last August was a ghastly warning of what may any night happen at any crowded theatre or music hall.

A new theatre, similar in character to the Holborn Amphitheatre, and quite plain outside, has been erected at Croydon from the designs of Mr. T. T. Smith. The building is 54 feet wide and 100 feet deep, the proscenium being placed about midway between the end walls, and the stage being removable when it is desired to use the building for equestrian performances. At Rochdale, a pretty little theatre, the Prince of Wales', has been erected from the designs of Mr. Salomons of Manchester; the auditory is of the customary horse-shoe form, and will accommodate 1,100 persons. A Theatre of Music, capable of accommodating 2,000 persons, has been erected at West Hartlepool from the designs of Messrs. Moore. The form of the auditory is an ellipse, truncated by the prosceniun, which forms a massive frame to the stage.

6. Street Architecture.

The commercial and monetary disturbances of the last two or three years have necessarily interfered somewhat with building operations in the City. Large buildings which had been commenced have been proceeded with less vigorously, the commencement of others has been deferred, and some that were projected will probably not be commenced at all. Still many works have been steadily carried forward, several have been completed, and at the present moment,

there appears to be something like a resumption of the former activity. In the works that have been continued, there has been no falling off in point of style or costliness, and in the buildings that we may expect to see shortly begun in connection with the new street to the Mansion House and the Holborn Valley Improvements, the City architects will, no doubt, be allowed ample room to display their taste and invention.

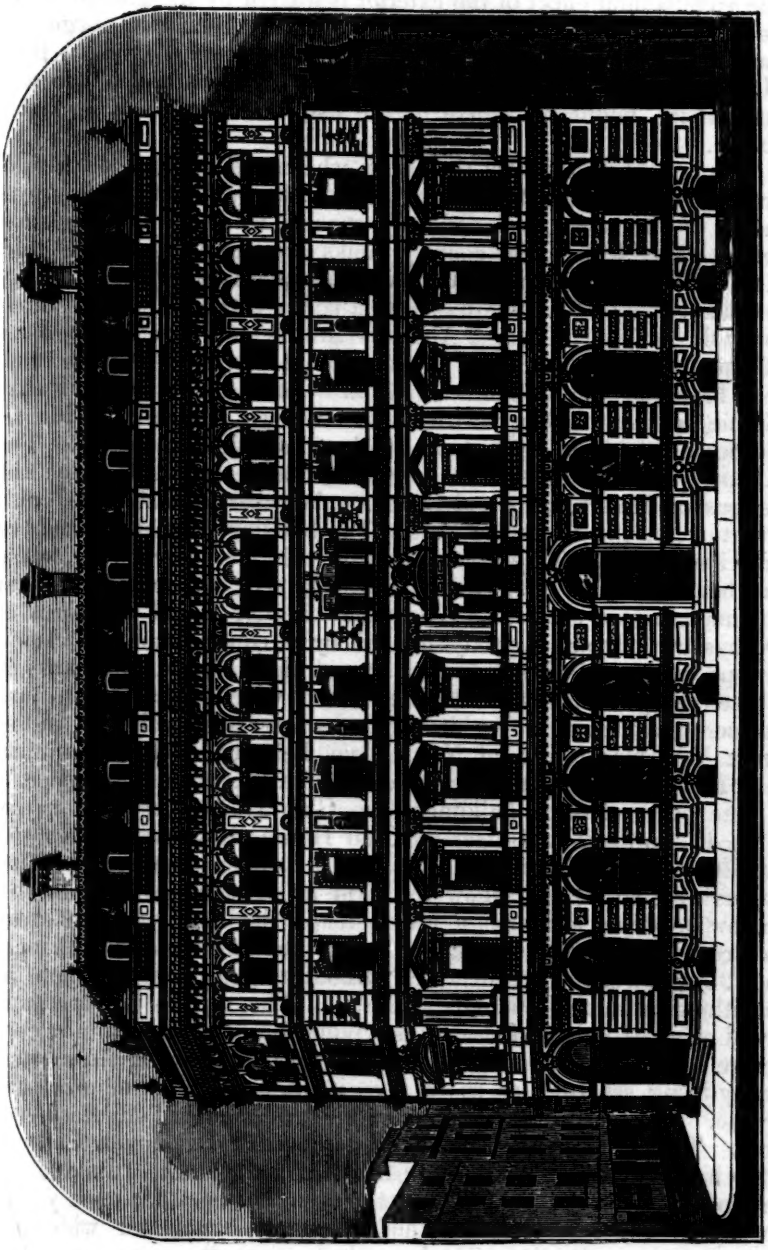
The City Offices, at the corner of Lombard-street and Gracechurch-street (Engraving No. 4), will serve as an example of the costly structures which are being erected in the City for business purposes, and an illustration of the progress of civic street architecture. The engraving shows the Lombard-street façade (120 feet long), with which that in Gracechurch-street, though shorter (80 feet long), corresponds. The material is Portland stone, polished granite being introduced, but more sparingly than in the Palmerston Buildings of the same company, and by the same architects. The style, as will be observed, is a very ornate Italian, a good deal of strength being obtained by the semi-rustication of the basement, and of richness by the bold and effective cornice with the range of arcade-like windows beneath. There is a great deal of carving in the two fronts, and it is better executed than in some of the other recent City buildings. The ground floor was intended for a bank, but it is now proposed to convert the great room into the Lombard Exchange and News Room, corresponding to the well known Exchange and News Rooms of Liverpool, Manchester, and Birmingham. The room is a very fine one, and of considerable size, perhaps sufficient for the purpose—it has an area of 7,200 square feet—but, having been designed for a bank, it can in no way compare with the magnificent exchange room of Liverpool. The upper rooms, as the title implies, are to be let out as offices. The building has cost about 70,000*l.*; the architects were Messrs. Francis.

The premises erected for the Union Bank, opposite the Mansion House, have been completed, as far as it is proposed to carry them for the present. But the unity of the design is somewhat marred by the want of an eastern wing, which cannot, we believe, be erected, owing to the house on that side not being obtainable. As it is, however, it is a large and stately structure, Italian in style, the principal order being Corinthian, and a fitting habitation for the important firm to which it belongs. It is built of Portland stone, not overlaid with ornament, and all the parts are carefully finished. Some of the other offices in this part of the City, in Old Jewry, Cornhill, and in Broad-street, have been finished, but except that they are of an equally solid though somewhat less ornamental character than some we have had occasion to mention in past years, there is nothing in them to call for specific notice. The offices of the Leadenhall Dock Company, in Leadenhall-street, may perhaps form an exception, rather, however, as belonging to a representative company, than for any remarkable architectural merit. The building, like the great majority of the larger City offices, is of stone, and palatial Italian in style, and consists of a plain, rusticated basement, with a large doorway at each side, the principal entrance being marked by an emble-

matic group of Britannia and Commerce above it; a first storey with square-coupled columns, and a cornice over; and a second, and principal storey, with round Corinthian columns, carrying an architrave and much bolder and richer cornice, with an attic above. The architect was Mr. E. N. Clifton.

Among the new warehouses in Tower-street and Eastcheap, Gothic seems to be prevailing. During the last two or three years, we have referred to several which have been erected. This year we may instance, as the most remarkable development of the style, the vinegar warehouse of Messrs. Hill, Evans, & Co., in Eastcheap. The frontage is rather narrow, being under 50 feet. It has a ground floor and four upper storeys, and is divided into three bays, the centre, which is the narrowest, being a waggon entrance on the ground floor, with a gabled arch running into the floor above, and terminating in a sort of dormer, covered with a crested pavilion roof, while the side bays end in lofty gables. Importance is given to the second storey in these bays by boldly projecting gabled and cusped canopies, over the square-headed three-light windows. A vigorous play of light and shade is thus obtained, and this is assisted by the three detached shafts, carried through two storeys from which the canopies spring. The materials are red and black brick, and Tisbury stone. The style is French, but some of the details are Venetian. The general effect is novel and striking, though somewhat bizarre. The architect was Mr. R. L. Roumieu. Some Gothic warehouses, of coloured brick and stone, have been erected in the new Southwark-street, but there mostly the effect is bizarre, without being striking. At the West-end, some new offices and commercial buildings have been erected, and others are in progress, but none that we need stay to particularize; and it will be enough to mention that the mansions and other buildings on the Marquis of Westminster's estate, of which we spoke last year, have continued to make steady progress, the magnitude of the operations being now abundantly visible.

The building of immense hotels has received a check in London. Even the Midland Terminus Hotel, by which Mr. Scott seemed about to transform the architectural aspect of that part of London, appears to be at present in abeyance; but in the country they are still being built or completed. One, making rapid progress, at the Lime-street Terminus of the London and North-Western Railway, Liverpool, will hardly yield in size or splendour to the Midland Hotel, while the roof of the terminus platform will rival that of the Midland Terminus, it being 385 feet long, and a segmental arch 214 feet in span. The hotel will be of stone; modified Gothic in style, and have a principal front 298 feet long, and 81 feet high, in five storeys, with towers at the north and south ends 142 feet high. The architect is Mr. A. Waterhouse. The Northern Hotel, by the Great Northern Railway Station, Leeds, is another of these superb structures, and has just been completed from the designs of Mr. G. Hadfield. It is Italian Gothic in style; large, lofty, and palatial in appearance, and contains some splendid rooms. The City Hotel, Broad-street, Bristol, occupying the site of the once famous White Lion and White Hart hotels, is approaching completion. It has a

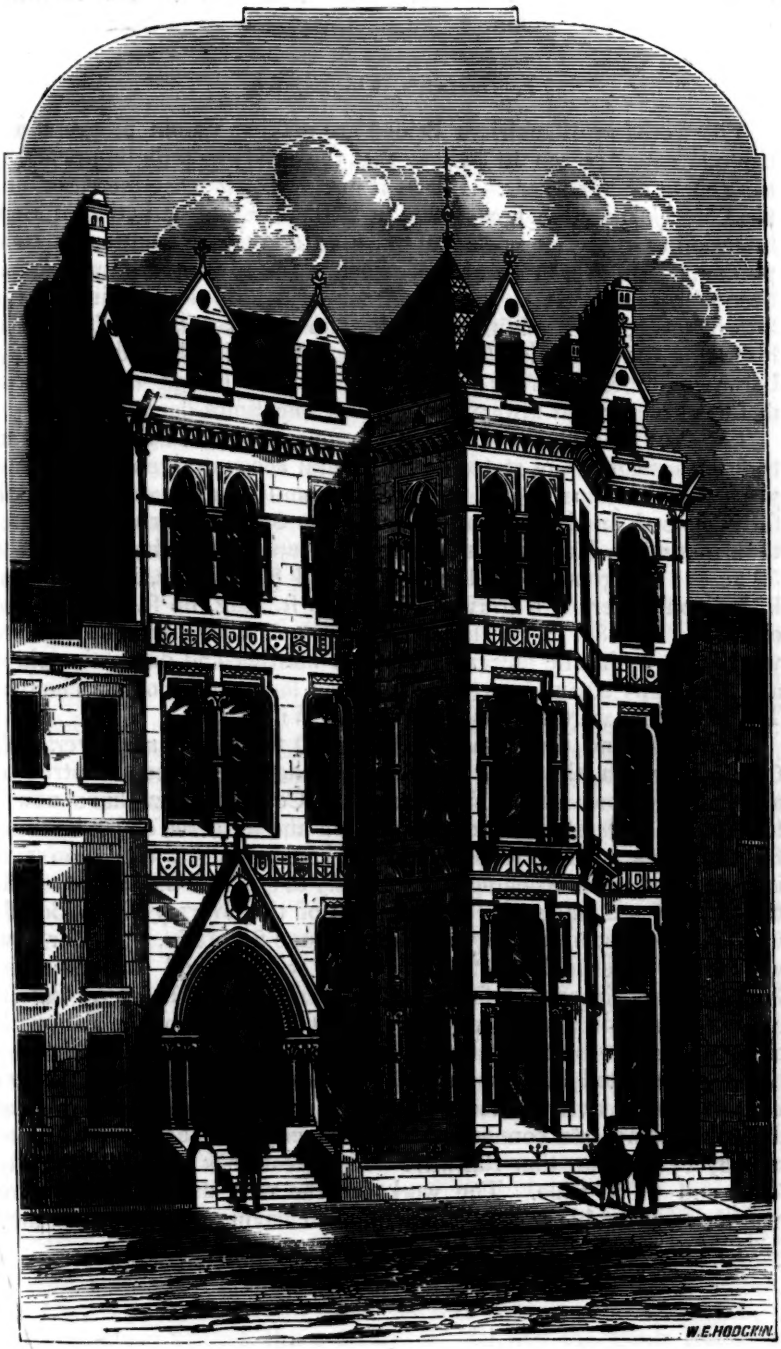


No. 4.—City Offices, Lombard Street.

frontage of 110 feet, and a depth of 136 feet, and contains, besides the large public rooms, upwards of 100 sitting and bed-rooms; but the architectural effect of the exterior is marred by the ground storey being a range of shops. The Palace Hotel, Buxton, a large and handsome building, designed by Mr. H. C. Currey; the Severn Bank Hotel, at Newnham, designed by Mr. A. W. Maberley, of Gloucester, and others, might be added to the list, but these will probably suffice.

Throughout the country the banks, whether joint-stock or private, are contributing their full share towards the architectural improvements of the towns, and curiously enough, while the London banks are all classic Italian, the country banks are mostly Italian Gothic. At Bradford, for example, Mr. A. Waterhouse has erected a large and handsome Gothic building, with a porch entrance for the Bradford Old Bank, and Messrs. Andrews and Pepper have designed one of equally ornate character, French Gothic in style, with a tower 80 feet high, for the Commercial Bank. At Leeds, a noble Italian Gothic edifice, red brick with stone dressings, designed by Mr. G. G. Scott, has been erected, as the bank of Messrs. Becket. The Alliance Bank, Castle-street, Liverpool, nearly completed, from the designs of Messrs. Lucy and Littler, is, however, an elaborate Italian structure, of the Sansovino class. The building is of stone, and the principal front is richly decorated with sculpture and carvings, while the banking room, a square of about 65 feet, has four Corinthian columns in the centre, and fourteen pilasters round the sides of Derbyshire marble, is partly lighted by a cupola, and has classic groups and scroll-work in relief around the walls. Other banks at Chesterfield, Appleby, and elsewhere; warehouses, shops, and business premises of an architectural character at Manchester, in the great Yorkshire towns, at Nottingham, Leicester, and various other busy and improving places, must be left with this general reference.

One other class of buildings, the Club Houses, remains to be noticed. In the New University Club House, St. James's-street, we have the first application of Gothic to a London club-house. The engraving (No. 5) will show the form it has assumed. With the narrow frontage available, it was perhaps the most effective style that could be adopted. Certainly it has produced a pleasant change in St. James's-street architecture. About its general aspect there is something attractive and characteristic. The surface is varied; a broad effect of light and shadow is produced by the oriel form of the centre bay, and this is much increased by the windows in the second storey being set back so as to give it the appearance of an open arcade. The least effective feature is the porch gable, which is very poor. The architect was Mr. A. Waterhouse. The Junior Carlton Club has added another to the palaces in Pall Mall. It is a large and lofty structure of the kind of Italian that has been for some years appropriated to such buildings, and wears the stately air which is native to them. But it cannot be ranked among the more successful of its class, and the St. James's-square front, though it differs from the Pall Mall front, does not differ from it for the better. The interior is said to be conveniently arranged, and the principal rooms,



No. 5.—The New University Club-house.

each about 90 ft. by 27 ft., very noble apartments. The architect was Mr. H. D. Brandon.

7. Bridges, Docks, &c.

The works at Blackfriars Bridge are making visible progress, and there is every reason to believe that the roadway will be opened in the course of next year. But as it proceeds, the cost increases, and the City Corporation have found it necessary to give notice of their intention to apply for powers to raise an additional loan for its completion. The great railway bridge across the Mersey at Runcorn has been completed. It is an iron girder bridge of three main spans of 305 ft. each, with additional arches on the Lancashire side. The bottom of the bridge is 75 ft. above high water level; and a footway, borne on cantilevers, runs along each side of the bridge—a great gain, as the old ferry was always tedious and sometimes dangerous.

The Millwall Docks were formally opened in March last, but as their dimensions were stated and a general account given of them last year, little remains to add respecting them. They seem to be skilfully planned, and have a water area of over 33 acres—which is greater than that of St. Katharine's Docks—but capable of being enlarged to 52 acres; the great lock, 450 ft. long and 80 ft. wide, is the largest in London; there is a graving dock, 413 ft. long, 65 ft. wide, at the entrance, and 80 ft. in the centre; cranes lifting fifteen tons are worked by hydraulic power; sheers for masting and dismasting ships are worked by steam, and there are nine long ranges of warehouses. The engineers were Messrs. Fowler and Wilson.

At Sunderland the Hendon Dock, 830 feet long, and averaging 600 ft. in width, the water area being 11 acres, has been constructed at a cost of about 110,000*l*. The Dock Commissioners have now a total of 75 acres of dock accommodation and 90 acres of land gained from the sea. At Liverpool and Birkenhead dock extension and improvement are proceeding as vigorously as ever. The docks at both these towns are under the management of the Mersey Dock Board, whose expenditure for the year ending June 24, 1868, was—for new works at Liverpool, 86,238*l*.; upon repairs and maintenance, 70,618*l*.; at Birkenhead for the same period, 220,618*l*. At Cardiff a large new basin and a low-water pier at the mouth of the Taff, with other works, are being pushed rapidly forward. New docks are also being constructed at Newport and at Llanelly. The new Bristol Channel Docks at Avonmouth have been commenced. They will be placed in immediate connection with the city and the great lines of railway by the Junction Railway. The great dock is to be 1,400 ft. long, and 85 ft. wide. The works of the new dock at Lynn are making considerable progress, Government having agreed to advance the Commissioners 20,000*l*. on loan.

XIII.—CHRONICLE OF THE SESSION OF PARLIAMENT, 1867-8.

1867. *Nov.* 19. THE Third Session of the Seventh Parliament of the present reign was opened by Commission. The royal speech announced the undertaking of a hostile expedition to Abyssinia, for the purpose of delivering our envoys and other subjects held there in captivity; after expressing a hope for the continuance of European peace it alluded to the French expedition to Rome, and trusted that the insurgents having been repulsed, the troops would be soon withdrawn. It then announced that Bills would be introduced in the course of the Session for preventing bribery at elections, for the extension of public education, for the amendment of the law, and other purposes. The Address, in reply, was agreed to in both Houses without a division.

Nov. 20. (COMMONS.) After some conversation on the Abyssinian expedition, Mr. M'Cullagh Torrens brought in a Bill for Improving the Dwellings of the Labouring Classes.

Nov. 21. (COMMONS.) A Bill to amend the Metropolitan Streets Act, so far as related to costermongers and street-hawkers, was brought in and read a first time.

Nov. 22. (COMMONS.) Sir C. O'Loghlen's Bill for the Amendment of the Law of Libel read a first time.

Nov. 25. (LORDS.) The House was occupied with a conversation on the Abyssinian expedition and the contract for the conveyance of the Indian Mails.

(COMMONS.) The Metropolitan Streets Act Amendment Bill was read a second time, and the Burials (Ireland) Bill, the Industrial Schools (Ireland) Bill, and the East London Museum Bill, were read a first time.

Nov. 26. (COMMONS.) The Sale of Reversions Amendment Bill and the Turnpike Trusts Bill were read a first time. In Committee of Supply the Chancellor of the Exchequer moved the grant of 2,000,000*l.*, as the first portion of the expenses of the Abyssinian expedition, which was agreed to, after a long discussion as to the impropriety of engaging in the war before consulting Parliament.

Nov. 27. (COMMONS.) The report of the Supply Committee was brought up and agreed to, and Mr. Newdegate's Church-rate Commutation Bill, and the Mines Assessment Bill were read a first time.

Nov. 28. (LORDS.) The Earl of Devon moved for papers explaining the relation of the Poor Law Board to the Boards of Guardians, in respect to the management of workhouses, of which complaints had been made.

(COMMONS.) In Committee, Mr. Hunt explained the mode in which it was proposed to defray the expenses of the Abyssinian expedition, a surplus of income over expenditure would be so applied; an additional penny in the pound on the income tax of the year would be levied; and the deficiency on an estimated expenditure of 2,000,000*l.*; and after some objection as to the share which India would have to bear in the expenses of the war, the proposal was agreed to after a division of 198 to 23. The Metropolitan Streets Traffic Amendment Bill passed through Committee, after a division of 73 to 30. The Sales of Reversions Bill was read a second time; the Sale of Liquors on Sunday Bill, the Compulsory Church Rates Abolition Bill, and the Bank Holidays Bill (providing that bills of exchange, &c. falling due on Sunday or any close day, shall be paid on the following day), were read a first time.

Nov. 29. (Commons.) In Committee, the Indian Mail contract was approved by 55 to 13 on a division; and the Life Policies Nomination Bill, and the Income Tax Bill, were read a first time.

Nov. 30. (Commons.) The House met on Saturday, in order to pass the Metropolitan Streets Act Amendment Bill and the East London Museum Bill; and the Income Tax Bill and the Consolidated Fund (2,000,000*l.*) Bill, were read a second time.

Dec. 2. (Commons.) The Income Tax Bill and the Two Million Bill, passed through Committee.

Dec. 3. (Lords.) The Sales of Reversions Bill and the Metropolitan Streets Act Amendment Bill were read a second time; the Income Tax Bill and the Two Million Bill were read a first time.

(Commons.) The Income Tax Bill and the Consolidated Fund (2,000,000*l.*) Bill were read a third time and passed. Mr. Hardcastle's Bill for the Abolition of Church Rates, and Mr. Hubbard's for their regulation, were both read a first time; as was also a Bill to amend the Law in respect to the Sale of Railway and Gas Company Shares.

Dec. 5. (Lords.) In Committee on the Metropolitan Streets Amendment Act, a clause was introduced transferring the supervision as to having the hackney cabs lighted at night from the Police Commissioner to the Home Secretary, with the understanding that the regulation would not be enforced, as it had occasioned a strike of the cab proprietors, and much inconvenience to the public, on the evening of Dec. 3.

(Commons.) In Committee, the contract with the Cunard Company for the conveyance of the North-American mails, was confirmed; the Public Schools Bill, and the Foreign Cattle Market Bill, were read a first time.

Dec. 6. (Lords.) The Sales of Reversions Bill, the Drainage and Improvement of Lands (Ireland) Supplemental Bill, the Metropolitan Streets Act Amendment Bill, the Income Tax Bill, and the Consolidated Fund (2,000,000*l.*) Bill, were read a third time and passed.

(Commons.) The Amendments of the Lords on the Metropolitan Streets Act Amendment Bill (inserting the clause for the relief of the cab proprietors), was agreed to.

Dec. 7. (Lords.) The royal assent was given by Commission to the Metropolitan Streets Act Amendment Bill, the Income Tax Bill, the Consolidated Fund (2,000,000*l.*) Bill, the Sales of Reversions Bill, and the Improvement and Drainage of Land (Ireland) Bill; and the House adjourned until Feb. 13, as did also the House of Commons.

1868. *Feb.* 13. Both Houses met after the adjournment. In the Upper House the sitting was merely formal; in the House of Commons the Metropolitan Foreign Cattle Market Bill, and the Public Departments (Extra Receipts) Bill, were read a second time; and the Chancellor of the Exchequer introduced a Bill for the Improvement of the Trial of Election Petitions, which, after a long discussion, was read a first time.

Feb. 14. (Commons.) The Public Schools Bill was read a second time, and the Habeas Corpus Suspension (Ireland) Act Continuance Bill, carrying it on until March 1, 1870, was read a first time.

Feb. 17. (Lords.) The East London Museum Site Bill, passed through Committee, and a Bill to amend the Consecration of Churchyards Act, was read a first time.

(COMMONS.) The Habeas Corpus Suspension (Ireland) Act Continuance Bill was read a second time; and the Scotch Reform Bill was read a first time, after a long discussion.

Feb. 18. (LORDS.) The Promissory Oaths Bill was read a second time.

(COMMONS.) Mr. Dodson moved a series of amendments on the Standing Orders, to lessen the labour of the House in considering Private Bills; Mr. Seely obtained the appointment of a Committee to consider the system of accounts in use by the Admiralty Board. The Industrial Schools (Ireland) Bill was read a second time; and the Habeas Corpus Suspension (Ireland) Bill, passed through Committee.

Feb. 19. (COMMONS.) The Bank Holidays Bill, the Life Policies Nomination Bill, the Compulsory Church-rates Abolition Bill, were read a second time; and the Habeas Corpus Suspension (Ireland) Act Continuance Bill, was read a third time and passed.

Feb. 20. (LORDS.) The East London Museum Site Bill was read a third time and passed.

(COMMONS.) The Ecclesiastical Titles Repeal Bill was read a first time.

Feb. 24. (LORDS.) The Appeals in Chancery Bill, enabling the Lords Justices to sit separately in certain cases; and the Marquis of Clanricarde's Land Tenure in Ireland Bill, were read a first time; and the Habeas Corpus Suspension (Ireland) Act Continuance Bill was read a second time.

(COMMONS.) The Public Departments (Extra Receipts) Bill was read a third time and passed; the Weights and Measures Metric System Bill, the Sea Fisheries Bill, the London Coal and Wine Duties Bill, the Scotch Law Courts Bill; and the Court of Justiciary (Scotland) Bill, were all read a first time.

Feb. 25. (LORDS.) The Habeas Corpus Suspension Act (Ireland) was read a second time; and the Earl of Malmesbury announced the resignation of the Earl of Derby as First Lord of the Treasury, and that Mr. Disraeli had received her Majesty's commands to form a new ministry, whereupon the Houses adjourned, with an intervening meeting, to March 5.

March 5. (LORDS.) The Earl of Malmesbury announced that the ministerial arrangements were now completed. The Court of Appeal (Chancery) Amendment Bill was read a second time.

(COMMONS.) Mr. Disraeli made a similar statement to that above. The Metropolitan Tramways Bill was thrown out on the second reading. The Capital Punishments within Prisons Bill was read a second time after a division of 181 against 25; as were also the Election Petitions and Corrupt Practices at Elections Bill, the London Coal and Wine Dues Continuance Bill, the Judgments Extension Bill, and the Sale of Liquors on Sunday (Ireland) Bill; the Railway and Gas Shares Bill was withdrawn; and the Fairs (Ireland) Bill, for alteration of days for holding, and the Metropolitan Gas Act Amendment Bill, were read a first time.

March 6. (COMMONS.) The County Financial Boards Bill, the County Expenditure Bill, and the Divorce and Matrimonial Causes Court Amendment Bill, were read a first time.

March 9. (LORDS.) The Bankruptcy Law Amendment Bill, the Arrest for Debt on Final Process Repeal Bill, the Ecclesiastical Commission Bill, and the Regulation of Railways Bill, were read a first time.

(COMMONS.) The Fees (Ireland) Bill, introduced by the Chancellor of the Exchequer, was thrown out on the second reading, without a divi-

sion, The Representation of the People (Scotland) Bill, and the Metropolis Subways Bill, were read a second time; the Oyster and Mussel Fisheries Bill, the Land Writs Registration (Scotland) Bill, the Titles to Land Consolidation (Scotland) Bill, and the Ecclesiastical Buildings and Glebes (Scotland) Bill, were read a first time.

March 10. (Lords.) The Public Departments (Extra Receipts) Bill, and the Registration of Writs (Scotland) Bill, were read a third time and passed. The Railways (Extension of Time) Bill was read a first time.

(Commons.) The Salford Hundred and Manchester Courts of Record Bill was read a second time after a division of 104 to 70. Mr. Maguire moved the appointment of a Committee to take into immediate consideration the condition and circumstances of Ireland; a long debate ensued, amendments were moved and suggested, and the discussion was adjourned to the 12th. The County Courts (Admiralty Jurisdiction) Bill was read a second time.

March 11. (Commons.) Mr. Gladstone's Compulsory Church Rates Abolition Bill passed through Committee, after a division on the first clause of 167 against 30; and the Artisans' and Labourers' Dwellings Bill was read a second time.

March 12. (Lords.) The Land Tenure (Ireland) Bill, and the Ecclesiastical Commissioners' Orders in Council Bill, were read a second time; and the Court of Appeal (Chancery) Bill, was read a third time and passed.

(Commons.) The debate on Mr. Maguire's motion was continued and adjourned. The Fairs (Ireland) Bill was read a second time; and the Renewable Leasehold Conversion (Ireland) Act Extension Bill was read a first time.

March 13. (Lords.) The Poor Laws Amendment Bill was read a first time.

(Commons.) The debate on the Irish question was resumed and adjourned.

March. 16. (Lords.) The Railways (Extension of Time) Bill was read a second time; and the Ecclesiastical Commissioners' Orders in Council was read a third time and passed.

(Commons.) The debate on the Irish question was continued. Mr. Gladstone and Mr. Disraeli spoke, and the motion was withdrawn. The Oyster and Mussel Fisheries Bill was read a second time.

March 17. (Commons.) Mr. Bruce's Elementary Education Bill, the Reformatory Schools (Ireland) Bill, and the Contagious Diseases Amendment Bill, were read a first time; in Committee of Supply some items for the Army and Navy were agreed to, and the County Courts (Admiralty Jurisdiction) Bill was read a second time.

March 18. (Commons.) The Sale of Liquors on Sunday Bill was read a second time after a long debate, and referred to a Select Committee.

March 19. (Commons.) In Committee of Supply votes were taken for 67,120 men and boys for the navy, and 2,000,000*l.* on account of the Navy Estimates. The Sea Fisheries Bill and the Irish Fairs Bill were read a third time and passed; the Consolidated Fund Bill was read a second time; and the Representation of the People (Ireland) Bill was read a first time.

March 20. (Lords.) The Regulation of Railways Bill was read a second time.

(Commons.) In Committee of Supply a number of miscellaneous items were voted; among them 4,000,000*l.* on account of the Army Estimates;

and the Compulsory Church Rates Abolition Bill was read a third time and passed.

March 23. (Lords.) The Bankruptcy Acts Repeal Bill, the Bankruptcy Bill, the Judgment Debtors Bill, and the Traders (Ireland) Bankruptcy Bill were read a second time.

(Commons.) In Committee of Supply the Army Estimates were brought forward; the sum of 16,455,450*l.* was voted, and 133,691 men. The Land Writs Registration (Scotland) Bill, and the Marine Mutiny Bill, were read a second time.

March 24. (Lords.) The Elementary Education Bill was read a first time, and the Poor Relief Bill was read a second time.

(Commons.) The Boundaries Bill was read a first time; the London Coal and Wine Duties Continuance Bill was passed into Committee after a division of 147 to 33; and the Compulsory Church Rates Abolition Bill was read a third time, and passed by a majority of 131 against 28.

March 25. (Commons.) The Grand Jury Cess (Ireland) Bill was thrown out by 70 to 57 on the second reading; the Mutiny Bill was read a second time; and a Bill for regulating Tancred's Charity in Yorkshire was rejected by 83 to 69.

March 26. (Lords.) The Compulsory Church Rates Abolition Bill was read a first time; the Legitimacy Declaration (Ireland) Bill was read a second time; and a Committee was appointed to consider the Ecclesiastical Titles Act.

(Commons.) In Committee on the Mutiny Bill, an amendment was carried by 152 against 127 for abolishing flogging in the army; and the Ecclesiastical Commissioners' Orders in Council Bill was read a second time.

March 27. (Lords.) The Fairs (Ireland) Bill was read a third time and passed.

(Commons.) The report of the Committee of Supply was brought up and agreed to; and the Consolidated Fund (6,000,000*l.*) Bill was read a third time.

March 30. (Lords.) The royal assent was given, by Commission, to the Fairs (Ireland) Bill, the Court of Appeal, Chancery (Despatch of Business) Bill, and some others. The Poor Relief Bill was referred to a Select Committee; the Sea Fisheries Bill was read a second time, and the Non-Traders' Bankruptcy (Ireland) Bill was read a third time and passed.

(Commons.) Mr. Gladstone moved his resolution for dis-establishing the Irish Church, which Lord Stanley met by an amendment for the appointment of a Commission of Inquiry, and the question was adjourned after a long discussion. The Local Government Supplemental Bill and the Reformatory Schools (Ireland) Bill, were read a second time.

March 31. (Lords.) The London Coal and Wine Duties Continuance Bill was read a second time, and a new standing order was agreed to, by which the practice of voting by proxy is to be discontinued.

(Commons.) The Mutiny Bill and the Marine Mutiny Bill were read a third time and passed. The debate on the resolution for dis-establishing the Irish Church was continued and adjourned.

April 1. (Commons.) The Religious Buildings Sites Bill, and the Libel Bill, were read a second time; and the Chancellor of the Exchequer brought in a Bill to enable the Postmaster-General to acquire, work, and maintain the Electric Telegraphs, which was read a first time.

April 2. (Lords.) The Mutiny Bill was read a second time; the Duke of Cambridge complaining that corporal punishment being abolished, and no other punishment substituted for it, there would be difficulty in maintaining discipline in the army; and the Medical Practitioners (Colonies) Bill was read a second time.

(Commons.) The debate on the Irish Church resolution was continued and adjourned; in Committee of Supply a grant of 1,200,000*l.* for the Civil Service was agreed to; the Renewable Leaseholds Conversion (Ireland) Act Extension Bill was read a second time; and a Bill to limit the further creation of Peers in Ireland was read a first time.

April 3. (Lords.) The Law of Partition Bill was read a first time, and the gift was announced of thirty scholarships of 100*l.* a year, endowed by Mr. Whitworth for students in mechanical science. The House adjourned to April 23.

(Commons.) The debate was resumed on Mr. Gladstone's resolutions for dis-establishing the Irish Church. After a long debate the House divided on Lord Stanley's amendment, for which 270 voted, against it 330; Mr. Gladstone's resolution was then carried by 328 against 272, and the House adjourned to April 20.

April 20. (Commons.) In Committee of Supply a number of items were voted for the Civil Service Estimates; the Boundary Bill, the Titles to Land Consolidation (Scotland) Bill, and the Ecclesiastical Buildings and Glebes (Scotland) Bill, were read a second time.

April 21. (Commons.) A Bill to amend the Law relating to the Property of Married Women was read a first time; on going into Committee on the Capital Punishments within Prisons Bill, Mr, Gilpin moved a resolution for the total abolition of Capital Punishment. which was rejected on a division by 127 to 23. The Petty Sessions and Lock-up Houses Bill was read a third time, and the Legitimation Declaration (Ireland) Bill was read a second time.

April 22. (Commons.) The Burials (Ireland) Bill and the Sunday Tradings Bill were read a second time, and the Canongate Annuity Tax Bill was thrown out on the second reading by 86 against 59.

April 23. (Lords.) The Compulsory Church Rates Abolition Bill was read a second time, and the Inclosure Bill was read a third time and passed.

(Commons.) The Chancellor of the Exchequer introduced his Budget; he estimated the expenditure, exclusive of the expenses of the Abyssinian expedition, at 70,428,000*l.*; and the revenue, continuing the taxes as at present, at 71,350,000*l.*; the Abyssinian expedition he estimated would cost 3,000,000*l.* in addition to the 2,000,000*l.* already provided, to meet which he proposed to raise the income-tax from 4*d.* to 6*d.* in the pound; the first item, continuing the duty on tea, was voted, and the House resumed. Sir S. Northcote introduced two Bills for the better administration of the government of India, which were read a first time.

April 24. (Commons.) After a long conversation on the affairs of Crete, a resolution proposed by Mr. Goldney, that the expenses of the Copyhold, Inclosure, Tithe, and Charity Commissions, ought not to be borne by the public, was carried by 106 against 105; the Ecclesiastical Commissioners' Orders in Council Bill, the Legitimacy Declaration (Ireland) Bill, and the Religious Building Sites Bill, were read a third time and passed.

April 27. (Lords.) An address of sympathy to the Queen was voted (a similar one in the Commons also) on the escape of the Duke of Edinburgh from the attempt to murder him. The Educa-

tion Bill was read a second time, as were also the Partition Bill, the Prisons Bill, and the Local Government Supplemental Bill.

(COMMONS.) In Committee Mr. Gladstone's resolutions for dis-establishing the Irish Church were discussed, and the debate adjourned.

April 28. (LORDS.) The Local Government Supplemental Bill was read a second time, and the Promissory Oaths Bill was read a third time and passed. A discussion then took place in consequence of the Earl of Derby asking questions of Earl Russell as to the resolutions regarding the dis-establishing of the Irish Church.

(COMMONS.) The debate on Mr. Gladstone's resolutions was resumed, and adjourned to the 30th. The Sea Fisheries (Ireland) Bill was read a first time, and the United Parishes (Scotland) Bill was read a third time and passed.

April 29. (COMMONS.) The Railway and Joint Stock Companies' Accounts Bill was read a second time; the County Financial Boards Bill was thrown out on the second reading by 154 against 46.

April 30. (LORDS.) The Church Rates Abolition Bill was referred to a Select Committee; the Law of Partition Bill and the Prisons (Compensation to Officers) Bill were read a third time and passed.

(COMMONS.) The debate on Mr. Gladstone's resolutions for dis-establishing the Irish Church was resumed; on its close the House divided, in favour of the resolution 330, against it 265; Mr. Disraeli then moved that the House should adjourn till May 4, that the ministry might consult as to the course they should adopt. The Documentary Evidence Bill was read a second time, and the House adjourned.

May 4. (LORDS.) The Petty Sessions and Lock-up Houses Bill was read a third time and passed.

(COMMONS.) Mr. Disraeli informed the House that he had tendered the resignation of the ministry to the Queen, who had declined to receive it; that he had then proposed a dissolution of Parliament, which she had agreed to as soon as the state of public business would admit; and that ministers therefore proposed to hold office, and bring forward such measures as were necessary, during the session, to dissolve in November, and leave the ultimate decision of their position to the parliament elected by the reformed constituency; Mr. Gladstone declined entering into any agreement as to the course the Liberal party would take, but consented to postpone the discussion of his two remaining resolutions, and in the meantime to allow the other business to be proceeded with, accordingly in Committee of Supply a number of items in the military estimates were voted, and the increase of the income-tax from 4*d.* to 6*d.* was agreed to.

May 5. (COMMONS.) The House was almost entirely occupied in discussing the statement of the First Lord of the Treasury as to the course intended to be pursued by the ministry, especially as to its intentions respecting an immediate dissolution of the present Parliament. Mr. J. S. Mill introduced Bills for establishing municipal corporations in each of the parliamentary boroughs of the metropolis.

May 6. (COMMONS.) The Mines Assessment Bill, the Divorce and Matrimonial Causes Court Bill, the Cotton Statistical Bill, were read a second time; and the Artizans' and Labourers' Dwellings Bill was considered in Committee.

May 7. (LORDS.) The Capital Punishments within Prisons Bill, and the Industrial Schools (Ireland) Bill, were read a second time,

and the Medical Practitioners (Colonies) Bill was read a third time and passed.

(COMMONS.) Mr. Gladstone's two remaining resolutions respecting the Irish Church were carried, after a smart discussion, without a division, the ministers, however, declaring that they meant to oppose the Bill when brought forward. The Irish Reform Bill, and the Vagrant Act Amendment Bill, were then read a second time.

May 8. (COMMONS.) The Documentary Evidence Bill and the Artizans' and Labourers' Dwellings Bill were read a third time and passed.

May 11. (LORDS.) The Bankruptcy Bill was withdrawn; and the Capital Punishments within Prisons Bill was read a third time and passed.

(COMMONS.) Mr. Corry introduced the Navy Estimates for 1868-9, which he represented as requiring the sum of 11,177,290*l.* and 35,700 seamen; and a number of the items were agreed to.

May 12. (COMMONS.) The Stockbrokers (Ireland) Bill, the Customs and Income Tax Bill, and the Exchequer Bond Bill, were read a second time.

May 14. (COMMONS.) The Weights and Measures (Metric System) Bill, was, after a division of 217 to 65, read a second time, as was the Jurors' Affirmations (Scotland) Bill. The debate on the second reading of the Oxford and Cambridge Universities Bill was brought to a close, without a decision, by the arrival of the hour on which, on Wednesdays, debates are discontinued.

May 14. (LORDS.) The Religious Buildings Sites Bill was read a second time, and the Industrial Schools (Ireland) Bill was read a third time and passed.

(COMMONS.) In Committee the Boundaries Bill was discussed, and a portion referred to a Select Committee; some items of the Civil Service Estimates were voted; the Customs and Income Tax Bill was read a third time and passed; the Partition Bill was read a second time; and the Established Church (Ireland) Suspensory Bill was read a first time after an animated discussion.

May 15. (COMMONS.) Sir C. O'Loghlen moved an address to her Majesty that she would be graciously pleased to provide a permanent royal residence in Ireland; Mr. Disraeli, Mr. Gladstone, and others, sympathized with the proposal, but considered the time inopportune, and the motion was withdrawn. In Committee of Supply a number of items for the Civil Service were agreed to.

May 18. (LORDS.) The Education Bill was withdrawn, and the Endowed Schools Bill, and the Customs and Income Tax Bill were read a second time.

(COMMONS.) Before going into Committee on the Scotch Reform Bill, Mr. Baxter moved that instead of increasing the number of members in the House, ten English boroughs, with populations under 5,000, should be disfranchised, which after some discussion was carried by 217 against 196. In Committee Mr. Bouverie moved the omission of the rate-paying clause, which was strenuously opposed by the ministry, but carried against them by 118 to 96; Mr. Disraeli then moved to report progress, as the decision made it necessary for the ministry to consider what course it should take, and after an animated discussion this was agreed to, and the Committee adjourned to May 25. In Committee of Supply several items of the Civil Service Estimates were agreed to; the Cotton Statistics Bill, the Jurors' Affirmation (Scotland) Bill, and the Stockbrokers (Ireland) Bill, were read a third time and passed.

May 19. (Lords.) The Friendly Societies Bill was withdrawn; the Consecration of Churchyards Act Amendment Bill, and the Alkali Acts Continuance Bill, were read a second time.

(Commons.) A Bill for regulating Fairs in England and Wales, and another for relieving the Consolidated Fund from the payment of the Church of England Establishments in the West Indies, were read a first time.

May 20. (Commons.) The Libel Bill was considered in Committee; the Entail Amendment (Scotland) Bill, and the Railway (Guards and Passengers' Communication) Bill, were read a second time; and the County Courts (Admiralty Jurisdiction) Bill was read a third time and passed.

May 21. (Commons.) Mr. Disraeli announced that the Ministry proposed to add certain words to one of the clauses of the Scotch Reform Bill, to repair the damage done to it by the rejection of the ratepaying clause. The Bribery at Elections Bill, the Reformatory Schools (Ireland) Bill, and the Vagrant Acts Amendment Bill, were considered in Committee, and the Medical Practitioners (Colonies) Bill was read a second time.

May 22. (Lords.) The Regulation of Railways Bill, the United Parishes (Scotland) Bill, and the Duchy of Cornwall Amendment Bill, were read a third time and passed; and the Cotton Statistics Bill was read a second time.

(Commons.) Mr. Gladstone moved the second reading of the Established Church (Ireland) Suspensory Bill; Mr. Hardy, as an amendment, moved that it be read that day six months. After an animated debate the amendment was rejected by 312 against 258, and the bill was read a second time.

May 25. (Lords.) The Endowed Schools Bill, and the Alkali Acts Continuance Bill, were read a third time and passed.

(Commons.) In Committee on the Scotch Reform Bill the Lord Advocate moved the insertion of words to prevent the registration of persons who were excused from poor rates on account of their poverty, or who, being rated, had not paid, or who shall have received parochial relief in the previous twelve months. A resolution, proposed by Mr. Baxter, to give four representatives to Glasgow, was met by an amendment of the Chancellor of the Exchequer, who proposed three, which was agreed to on a division by 261 to 222. Sir L. Palk then moved a proviso, that nothing in the present bill should reduce the number of members for England or Ireland, which was rejected by 262 against 95, and the Committee adjourned to May 28.

May 26. (Lords.) The Artizans' and Labourers' Dwellings Bill, and the Stockbrokers (Ireland) Bills, were read a second time; the Alkali Acts Perpetuation Bill was read a third time and passed; and several other bills were considered in Committee.

(Commons.) Mr. Labouchere moved that all expenses for diplomatic purposes should be voted by the House; and it was agreed to by 76 to 72; the House was counted out, after having adjourned over the Derby Day.

May 28. (Lords.) The Sale of Poisons and Pharmacy Act Amendment Bill was read a second time; the Poor Relief Bill was considered in Committee; and the Consecration of Churchyards Act Amendment Bill was read a third time and passed.

(Commons.) In Committee the Scotch Reform Bill was further considered, a number of clauses were agreed to, and the Committee adjourned to June 8. The West Indies Bill was read a third time and passed, and the Duchy of Cornwall Amendment Bill was read a second time.

May 29. (COMMONS.) The Civil Service Estimates were concluded, the report of the Committee brought up and agreed to. The County General Assessment (Scotland) Bill, and the Promissory Oaths Bill, were read a second time; the Registration of Writs (Scotland) Bill, and the Vagrant Act Amendment Bill, were read a third time and passed; and the Investment of Trust Funds Bill was discharged on the second reading.

June 4. (COMMONS.) In Committee of Supply the consideration of the Civil Service Estimates was continued, and 781,324*l.* were voted for purposes of education, with several other items.

June 5. (COMMONS.) The Thames Embankment (Chelsea) Bill was read a third time and passed. In Committee on the Established Church (Ireland) Bill, an amendment proposed by Mr. S. Aytoun for stopping all payments to Maynooth, was negatived by 185 to 109; while another amendment, that all appointments made in the college should be held subject to any future regulation, was adopted. On the second reading of the Metropolitan Board of Works Loan Bill being moved, the House was counted out.

June 8. (LORDS.) The Cotton Statistics Bill and the Metropolis Subways Bill were read a third time and passed.

(COMMONS.) The Party Processions Act Repeal Bill was withdrawn; the Scotch Reform Bill passed through Committee, after a clause adding the suburbs Partick and Govan to Glasgow had been rejected on a division of 91 to 86; the Boundaries Bill was considered in Committee, and adjourned; the Turnpike Acts Continuance Bill, the Courts of Chancery and Exchequer (Ireland) Fee Funds Bill, the Regulation of Railways Bill, the Consecration of Churchyards Act Amendment Bill, and the Alkali Acts Perpetuation Bill, were read a second time.

June 9. (LORDS.) The Army Chaplains Bill was read a second time.

(COMMONS.) The Endowed Schools Bill was read a third time and passed; the Metropolis Improvement (Loans) Act Amendment Bill was read a second time; on going into Committee on the Alkali Acts Perpetuation Bill, the House was counted out.

June 10. (COMMONS.) The Revenue Officers' Disabilities Removal Bill was read a second time; as was the Married Women's Property Bill, after a division of 123 on each side, when the Speaker decided in favour of the reading. The Extension of Powers of the Poor Law Inspectors and Medical Inspectors in Ireland Bill, and the Investment of Trust Funds Act Supplementary Bill, were read a first time.

June 11. (LORDS.) The Sea Fisheries Bill was read a third time and passed; and the Army Chaplains Bill was considered in Committee.

(COMMONS.) A bill for shortening the period of registration of electors was introduced by the Home Secretary and read a first time; the Boundary Bill passed through Committee; as did also the Representation of the People (Scotland) Bill, and two or three others.

June 12. (LORDS.) The Law of Copyright Amendment Bill was read a first time; the Railway Combination Bill was read a second time, and the Army Chaplains Bill passed through Committee.

(COMMONS.) The Court of Session (Scotland) Bill, the Court of Justiciary (Scotland) Bill, and the Curragh of Kildare Bill, were read a second time. An amendment for striking out the clause for the suspension of the payment of the Regium Donum from the Suspensory Bill was rejected.

June 15. (LORDS.) The County Courts Admiralty Jurisdiction Bill was read a second time; and the Sale of Poisons and Pharmacy Act Amendment Bill passed through Committee.

(COMMONS.) The Irish Reform Bill passed through Committee; the Government of India Act Amendment Bill, the Governor General of India Bill, the Registration (1868) Bill, and the Curragh of Kildare Bill, were read a second time; the Thames Embankment and Metropolis Improvement (Loans) Act Amendment Bill, the Duchy of Cornwall Amendment Bill, and the Voters in Disfranchised Boroughs Bill, were read a third time and passed.

June 16. (LORDS.) The Poor Relief Bill, and the Sale of Poisons Act Amendment Bill, passed through Committee, and the Salmon Fisheries (Scotland) Bill was read a second time.

(COMMONS.) The Public Schools Bill was considered in Committee; a motion by Mr. Bright for a Commission to inquire into the causes of the discontent of Nova Scotia at its union with Canada, was rejected by 142 to 85; and the Irish Church Suspensory Bill was read a third time and passed.

June 17. (COMMONS.) The Railway (Guards and Passengers' Communication) Bill was withdrawn; the Probate of Wills (Ireland) Bill was read a second time; the Judgments Extension Bill, and the Alkali Acts Perpetuation Bill, were read a third time and passed.

June 18. (LORDS.) The Established Church (Ireland) Bill, and the Judgments Extension Bill were read a first time; the Jurors' Affirmation (Scotland) Bill was read a second time; and the Sale of Poisons and Pharmacy Act Amendment Bill was read a third time and passed.

(COMMONS.) The Representation of the People (Ireland) Bill passed through Committee; all the clauses relating to the redistribution of seats having been withdrawn by the Government, and a number of proposed amendments rejected on divisions. The Electric Telegraphs Bill, and the Ecclesiastical Commissioners Bill, were read a second time; and the Representation of the People (Scotland) Bill was read a third time and passed.

June 22. (LORDS.) The Religious Buildings Sites Bill, and the Jurors' Affirmations (Scotland) Bill, passed through Committee.

(COMMONS.) The amendments of the Lords on the Sea Fisheries Bill were agreed to after two divisions of 133 against 125, and 75 against 46. The Representation of the People (Ireland) Bill passed through Committee; the Boundary Bill, and the Courts of Chancery and Exchequer (Ireland) Fee Funds Bill, were read a third time and passed; the Lands Clauses Consolidation Acts Amendment Bill, the Prisons (Scotland) Administration Acts Amendment Bill, the Bankruptcy Acts Amendment Bill (Mr. Moffatt's), and the Assignees of Marine Policies Bill were read a second time.

June 23. (LORDS.) The Poor Relief Bill, and the Jurors' Affirmation (Scotland) Bill, were read a third time and passed; the Representation of the People (Scotland) Bill, the Municipal Rate (Edinburgh) Bill, and the Thames Embankment and Metropolis Improvement (Loans) Act Amendment Bill, were read a second time.

(COMMONS.) The Public Schools Bill was considered in Committee; the Adulteration of Food or Drink Act Amendment Bill was read a second time; the Sunday Trading Bill and the Ecclesiastical Titles Bill were withdrawn.

June 24. (COMMONS.) The Sea Fisheries (Ireland) Bill, and the Larceny and Embezzlement Bill were read a second time.

June 25. (LORDS.) The debate on the second reading of the Established Church (Ireland) Bill commenced and was adjourned; and the Boundary Bill was read a second time.

(COMMONS.) Lord Elcho moved a resolution that the Peel statue be removed from its site in New Palace Yard, which, after some discussion, was agreed to by 182 votes against 71. In Committee on the Civil Service Estimates, the Regium Donum grant and several other items were voted. The Corrupt Practices at Elections Bill was considered in Committee; a proposal to retain the jurisdiction of the House in case of petitions, instead of referring them to the courts of law, as provided in the Bill, was rejected by 178 to 158, and the Committee was adjourned. The Railway Companies Advances Bill was read a second time; and the Representation of the People (Ireland) Bill was read a third time and passed.

June 26. (LORDS.) The Representation of the People (Ireland) Bill was read a first time; the debate on the Established Church (Ireland) Bill was continued and again adjourned.

(COMMONS.) The Metropolitan Foreign Cattle Market Bill was considered in Committee, and the discussion adjourned; the Entail Amendment (Scotland) Bill, and the Renewable Leasehold Conversion (Ireland) Bill, were read a third time and passed; the Bank Holidays and Bills of Exchange Bill passed through Committee; and the Sale of Liquors (Ireland) Bill was withdrawn.

June 29. (LORDS.) The Thames Embankment and Metropolis Improvement (Loans) Act Amendment Bill, was read a third time and passed; the debate on the second reading of the Established Church (Ireland) Bill was resumed, and on a division was rejected by 192 to 97.

(COMMONS.) The second reading of the Metropolitan Police Funds Bill was carried by 192 to 22; the Land Writs Registration (Scotland) Bill, the New Zealand (Legislative Council) Bill, were passed through Committee; the Municipal Elections (Scotland) Bill, the Contagious Diseases Act Amendment Bill, and the Sale of Poisons and Pharmacy Act Amendment Bill, were read a second time; and the Courts of Law Fees (Scotland) Bill, and the County General Assessment (Scotland) Bill, were read a third time and passed.

June 30. (LORDS.) The Representation of the People (Scotland) Bill passed through Committee: the Vagrant Act Amendment Bill, the Liquidation Bill, the Judgments Extension Bill, and the Representation of the People (Ireland) Bill, were read a second time.

(COMMONS.) The Revenue Officers' Disabilities Removal Bill passed through Committee, although opposed by the Chancellor of the Exchequer and by Mr. Gladstone, after a division of 79 to 47; the Bill for preventing the employment of the military at elections in Ireland was rejected on the second reading by 96 to 55; the Landed Property Improvement (Ireland) Bill, and the Municipal Corporations (Metropolis) Bill were withdrawn; the Bankruptcy Acts Amendment Bill passed through Committee; and the Bank Holidays and Bills of Exchange Bill was read a third time and passed.

July 1. (COMMONS.) The Oxford and Cambridge Universities Bill was read a second time, after a division of 198 to 140. The Metric System Bill, the County Financial Boards Bill, and the Libel Bill, were withdrawn. The Clerks of the Peace (Ireland) Bill, was read a second time; the University Elections (Voting Papers) Bill,

the Medway Regulation Act Continuance Bill, and the Prisons (Scotland) Administration Acts Amendment Bill were read a third time.

July 2. (Lords.) A vote of thanks to Sir Robert Napier and the Abyssinian army was unanimously agreed to in both Houses.

(Commons.) In Committee of Supply the Navy Estimates were considered, and several items agreed to; the Registration Bill was discussed in Committee, and several of the clauses passed; the Poor Law and Medical Inspectors (Ireland) Bill was read a second time; the Turnpike Trusts Arrangement Bill, and the Revenue Officers' Disabilities Removal Bill, were read a third time and passed.

July 3. (Lords.) The Compulsory Church Rates Abolition Bill, and the Liquidation Bill, were passed through Committee; the Reformatory Schools (Ireland) Bill, and the Petroleum Act Amendment Bill, were read a second time; the Salmon Fisheries (Scotland) Bill, and the Judgments Extension Bill, were read a third time and passed.

(Commons.) The Metropolitan Foreign Cattle Market Bill was debated previous to going into Committee, and adjourned; in Committee of Supply a number of items was considered, and the report was brought up and agreed to; the Metropolitan Police Funds Bill, the Poor Law and Medical Inspectors (Scotland) Bill, and the Fairs (Metropolis) Bill, passed through Committee; the Indorsing of Warrants Bill, and the Investment of Trust Funds Supplemental Bill, were read a second time; the Land Writs Registration (Scotland) Bill, and the Burials (Ireland) Bill, were read a third time.

July 6. (Lords.) The Registration Bill was read a first time; the Vagrant Act Amendment Bill, and the Boundary Bill, passed through Committee; the County General Assessment (Scotland) Bill, and the Courts of Law Fees (Scotland) Bills, were read a second time; and the Liquidation Bill was read a third time and passed.

(Commons.) The Registration Bill was read a third time and passed; the Election Petitions and Corrupt Practices Bill was considered in Committee, and several clauses were agreed to, but upon an amendment proposed by Mr. Ayrton, for an additional judge in each of the three courts, all the judges being then capable of trying elections, being carried against the ministers, the Committee was adjourned; the Registration (Ireland) Bill was read a first time; the Poor Law Medical Inspectors (Ireland) Bill, the Ecclesiastical Commissioners Bill, the Indorsing of Warrants Bill, and the Clerks of the Peace (Ireland) Bill, were read a third time and passed.

July 7. (Lords.) The West India Bill, for withdrawing the grant for the support of the Episcopal Church there, was read a second time, as were also the Representation of the People (Ireland) Bill, and the Registration Bill; the Vagrant Act Amendment Bill, the Boundary Bill, and the Representation of the People (Scotland) Bill, were read a third time and passed.

(Commons.) The Public Schools Bill passed through Committee; in Committee of Supply the Civil Service Estimates were considered, and a number of items agreed to, among them 99,380*l.* for the British Museum, and 789,349*l.* for the Post Office Packet Service; the Court of Session (Scotland) Bill, and the Larceny and Embezzlement Bill, passed through Committee; the Petit Juries (Ireland) Bill, and the Contagious Diseases Act Amendment Bill, were read a third time and passed; the Trade Societies and Combinations of Workmen Bill, the Commutation of Tithes Act Amendment Bill, and the Vaccination (Ireland) Bill, were read a first time.

July 8. (Commons.) The Ecclesiastical Buildings and Glebes (Scotland) Bill, and the Court of Judiciary (Scotland) Bill were read a third time and passed; the Sanitary Act Amendment Bill, and the Army Chaplains Bill, were read a first time.

July 9. (Lords.) A message from the Queen was transmitted to both Houses, recommending the grant of 2000*l.* a year to Sir Robert Napier and his immediate heirs. The Representation of the People (Ireland) Bill, the County Courts Admiralty Jurisdiction Bill, the County General Assessment (Scotland) Bill, and the Courts of Law Fees Bill were read a third time and passed; the Bankruptcy Acts Amendment Bill was read a second time. On the Earl of Shaftesbury moving the second reading of the Uniformity of Public Worship Bill, there was a long debate, ending by the previous question being carried; and thus the second reading was not agreed to. The Entail Act Amendment (Scotland) Bill, the Curragh of Kildare Bill, and the Land Writs Registration (Scotland) Bill, were read a second time.

(Commons.) In Committee of Supply, a number of items of military expenditure were agreed to; the Inland Revenue Bill was read a second time, as were the Registration (Ireland) Bill, and the Sanitary Act Amendment Bill; the Colonial Governors' Pensions Act Amendment Bill passed through Committee; and the Indorsing of Warrants Bill was read a third time and passed.

July 10. (Lords.) The Contagious Diseases Act Amendment Bill, the Lodgers' Property Protection Bill, and the Children's Protection Bill were withdrawn; the Admiralty Suits Bill was read a third time and passed; the University Elections Voting Papers Bill, the Libel (Ireland) Bill, the Turnpike Trusts Arrangement Bill, and the Railways (Ireland) Acts Arrangement Bill, were read a second time; the Consular Marriages Bill, and the Artizans' and Labourers' Dwellings Bill passed through Commmittee.

(Commons.) The grant of 2000*l.* a year to Sir Robert Napier and his next heir male was voted; and the Tithe Commutation Acts Amendment Bill was read a second time, as was also the Vaccination (Ireland) Bill.

July 11. (Lords.) The House met to pass the Representation of the People (Scotland) Bill, and the Larceny and Embezzlement Bill was read a first time.

July 13. (Lords.) The royal assent by commission was given to a large number of public and private Bills. A resolution, proposed by Lord Taunton, was agreed to, that no Railway Bill providing for an increase of the rates of traffic should be read a second time until a special report be made on the subject. The Revenue Officers' Disabilities Removal Bill, the Ecclesiastical Commissioners Bill, the Metropolitan Police Funds Bill, the Burials (Ireland) Bill, the Hudson's Bay Company Bill, and the District Church Tithes Act Amendment Bill, were read a second time; the Reformatory Schools (Ireland) Bill, the Compulsory Church Rates Abolition Bill, and the Registration Bill, were read a third time and passed.

(Commons.) In Committee of Supply, a number of items for the Naval Estimates were then agreed to; the Army Chaplains Bill, and the Salmon Fisheries (Scotland) Bill, were read a second time.

July 14. (Lords.) The Entail Amendment (Scotland) Bill, the Land Writs Registration (Scotland) Bill, the Universities Elections Voting Papers Bill, the Revenue Officers' Disabilities Removal Bill, the Libel (Ireland) Bill, the Hudson's Bay Company Bill, and the District Church Tithes Act Amendment Bill, passed through Com-

mittee. The Clerks of the Peace (Ireland) Bill, the Petit Juries (Ireland) Bill, the Bank Holidays and Bills of Exchange Bill, the Court of Justiciary (Scotland) Bill, and the Ecclesiastical Buildings and Glebes (Scotland) Bill, were read a second time.

(COMMONS.) The Election Petitions and Corrupt Practices at Elections Bill was discussed in Committee; several divisions were taken, but no material alteration was made. The Sanitary Act was read a third time and passed. In Committee of Supply a number of items in the Civil Service Estimates were agreed to; among them was a grant of 7500*l.* for the sufferers by the Clerkenwell Prison Explosion.

July 15. (COMMONS.) The Sale of Poisons and Pharmacy Act Amendment Bill, and Sir Robert Napier's Annuity Bill, passed through Committee; the Mines Assessment Bill was withdrawn; the Public Schools Bill, the Tithes Commutation Acts Amendment Bill, the Municipal Elections (Scotland) Bill, and the Liquidation Bill, were read a third time and passed.

July 16. (LORDS.) The Land Writs Registration (Scotland) Bill, and the University Elections Voting Papers Bill, were read a third time and passed; and the Public Schools Bill was read a first time.

(COMMONS.) In Committee of Supply, the last votes for the Army Estimates were passed; the Metropolitan Foreign Cattle Market Bill was discussed in Committee, and adjourned after several divisions.

July 17. (LORDS.) The Revenue Officers' Disabilities Removal Bill, the West Indies Bill, the Entail Amendment (Scotland) Bill, the Assignees of Marine Policies Bill, the Poor Law and Medical Inspectors (Ireland) Bill, the Petit Juries (Ireland) Bill, the Divorce and Matrimonial Causes Court Bill, the District Church Tithes Act Amendment Bill, and the Indorsing of Warrants Bill, were read a third time and passed; the Larceny and Embezzlement Bill, the Sanitary Act Amendment Bill, and the Vaccination (Ireland) Bill, were read a second time.

(COMMONS.) The Election Petitions and Corrupt Practices at Elections Bill was discussed in Committee, and a number of clauses settled; and the Poor Relief Bill was considered in Committee.

July 18. (COMMONS.) The Appropriation Bill and the Hudson's Bay Company Bill were read a second time; the Election Petitions and Corrupt Practices at Elections Bill passed through Committee; the Danube Works Loan Bill and the Admiralty Suits Bill were read a third time and passed.

July 20. (LORDS.) The Public Schools Bill and the Tithes Commutation Act Amendment Bill were read a second time; the Courts of Justiciary (Scotland) Bill and the Ecclesiastical Buildings and Glebes (Scotland) Bill were read a third time and passed.

July 21. (LORDS.) The Colonial Shipping Bill was read a second time; the Burials (Ireland) Bill, and the Bankruptcy Acts Amendment Bill, were read a third time and passed.

(COMMONS.) The Appropriation Bill and the Army Chaplains Bill were read a third time and passed; the Electric Telegraphs Purchase Bill was considered in Committee, passed through, and ordered to be reported; the Sale of Poisons and Pharmacy Act Amendment Bill was read a third time and passed.

July 22. (COMMONS.) The Oxford and Cambridge Universities Bill, and the Sale of Liquors on Sunday Bill, were withdrawn; the the Election Petitions and Corrupt Practices at Elections Bill

was considered in Committee, and several clauses agreed to after divisions. The Registration (Ireland) Bill was read a third time and passed; and the Hudson's Bay Company Bill passed through Committee.

July 23. (Lords.) The Public Schools Bill, the Colonial Shipping Bill, and the Titles to Land Consolidation (Scotland) Bill, passed through Committee; the Appropriation Bill was read a second time; the Vaccination (Ireland) Bill, the Tithes Commutation Act Amendment Bill, the Courts of Chancery and Exchequer (Ireland) Fee Funds Bill, and the Court of Session (Scotland) Bill, were read a third time and passed.

(Commons.) The Electric Telegraphs Bill, and the Hudson's Bay Company Bill, were read a third time; the District Church Tithes Act Amendment Bill was read a second time; the Election Petitions and Corrupt Practices Bill passed through Committee; and on the motion for going into Committee on the Metropolitan Foreign Cattle Market Bill, the House was counted out.

July 24. (Lords.) The Electric Telegraphs Bill and the Registration (Ireland) Bill were read a second time; the Public Schools Bill and the Appropriation Bill passed through Committee; the Municipal Elections (Scotland) Bill, the Larceny and Embezzlement Bill, the Titles to Land Consolidation Bill, and the General Police and Improvement (Scotland) Act Amendment Bill, were read a third time and passed.

(Commons.) The Election Petitions and Corrupt Practices at Elections Bill was read a third time and passed; the Regulation of Railways Bill was considered in Committee; as was the Metropolitan Foreign Cattle Market Bill, which, after several divisions, was withdrawn.

July 25. (Commons.) The Regulation of Railways Bill was read a third time and passed.

July 27. (Lords.) The Election Petitions and Corrupt Practices at Elections Bill, and the Danube Works Loan Bill, were read a second time; the Electric Telegraphs Bill passed through Committee; and the Public Schools Bill was read a third time and passed.

(Commons.) Sir S. Northcote made the annual financial statement for India. He stated that for 1867 the expenditure had been 44,530,000*l.* against a revenue of 42,012,000; that the estimate for 1867–8 showed an expenditure of 48,610,000*l.* against a revenue of 46,783,000*l.* Although there was a large deficiency in each year, the country was prospering, the revenue increasing without additional taxation, while the deficiency was owing to the large amount of public works undertaken, and which must be still further enlarged in order to develope the resources of the country, and which would ultimately be remunerative, and the resolutions, founded on the statement, were agreed to. The Government of India Act Amendment Bill, and the Governor General of India Bill, were withdrawn; the Poor Relief Bill passed through Committee, and the Salmon Fisheries (Scotland) Bill was read a third time and passed.

July 28. (Lords.) The Election Petitions and Corrupt Practices Bill, and the Danube Works Loan Bill, passed through Committee; the Electric Telegraphs Bill, and the Registration (Ireland) Bill, were read a third time and passed.

(Commons.) The Poor Relief Bill was read a third time and passed.

July 29. (Lords.) The Election Petitions Bill, the Danube Works Loan Bill, the Colonial Governors' Pension Act Amendment Bill, and the District Church Tithes Act Amendment Bill, were read a third time and passed.

(COMMONS.) The Mines Assessment Bill, the Church-rates Regulation Bill, and the Church-rates Commutation Bill, were discharged; and some amendments to Bills from the Lords were agreed to.

July 31. The Parliament was prorogued by Commission. The message thanked the Houses for their attention, announced that all foreign relations were satisfactory, congratulated them on the success of the Abyssinian expedition, noticed some of the principal measures passed, which it was hoped would have beneficial effects, adding that the Parliament would be dissolved at an early period, in order for an assembly of a House of Commons by an extended constituency at the earliest possible period.

XIV.—SUMMARY OF PUBLIC PETITIONS.

Session 31 & 32 Victoriæ.

I. *Parliamentary.*

	Petitions signed Officially or under Seal.	Total Number.	No. of Signatures.
Boundary Bill—Against	4	7	539
—— for Alteration	22	57	9,694
—— in Favour	1	8	3,530
Boundary Commissioners' Report—for Alteration	10	19	3,380
—— in Favour	7	17	2,106
Bristol Election—for declaring one of the Seats vacant, and for Issue of a New Writ	—	1	6,967
Representation of the People—for Extension of the Elective Franchise to Women	—	74	49,132
Representation of the People Act (1867)—for Alteration	26	51	44,418
Representation of the People (Ireland) Bill—for Alteration	5	14	1,057
Representation of the People (Scotland) Bill—for Alteration	48	72	7,523
—— for Introduction of a Clause extending the Elective Franchise to Women	—	1	508
Revenue Officers Disabilities Removal Bill—in Favour	3	81	7,329
Other Petitions on Parliamentary Subjects	30	54	2,620
Total Parliamentary	156	456	138,803

II. *Ecclesiastical.*

Burials (Ireland) Bill—Against	—	14	1,136
Church of Ireland—against Disendowment	149	5,359	540,969
—— for Disendowment.	275	2,209	573,019
Divorce and Matrimonial Causes Court—for Alteration of Law	—	1	809
Ecclesiastical Titles Bill—Against	10	99	12,717
Established Church (Ireland) Bill—Against	2	15	952
—— in Favour	9	15	1,401

	Petitions signed Officially or under Seal.	Total Number.	No. of Signatures.
Intoxicating Liquors—for Prohibiting Sale on Sunday	50	864	161,201
Oxford and Cambridge Universities Bill—Against	4	98	8,311
—— in Favour	20	378	23,213
Roman Catholic University (Ireland)—Against granting Charter	22	56	4,533
—— for granting Charter	3	141	42,406
Sale of Liquors on Sunday Bill—Against	34	583	476,942
—— in Favour	43	3,662	331,425
Sale of Liquors on Sunday (Ireland) Bill—in Favour	6	23	1,897
Sunday Trading—for Restriction	1	86	12,616
Sunday Trading Bill—Against	21	31	969
—— in Favour	1	31	3,565
Trinity College (Dublin)—Against Alteration of Present System	2	6	7,151
Other Petitions on Ecclesiastical Subjects	38	83	2,074
Total Ecclesiastical	690	13,754	2,207,306
III. *Colonial.*			
India—Against proposed Alteration in Rate of Postage	2	3	928
Other Petitions on Colonial Subjects	4	15	570
Total Colonial	6	18	1,498
IV. *Taxation.*			
Duty on Dogs Act (1867)—for Alteration	1	33	6,292
Fire Insurance—for Repeal or Reduction of Duty	149	317	14,737
Poor Rates (Metropolis)—for Equalization	6	21	7,770
Other Petitions relating to Taxation	122	220	3,077
Total Taxation	278	591	31,876
V. *Miscellaneous.*			
Artizans' and Labourers' Dwellings Bill—Against proposed Amendment	—	34	6,037
Bank Holidays Bill—in Favour	—	2	2,273
British Museum, &c.—for Opening on Evenings during the Week	2	14	1,066
Education (Scotland)—for Withdrawal of Revised Code	—	1	3,380
Electric Telegraphs Bill—Against	22	358	683
—— in Favour	3	408	6,058
Eyre, Edward John—for Re-Employment, and for Payment of Expenses attending his Prosecution	—	1	10,849
Herring Fisheries (Scotland)—for Alteration of Law	—	4	1,180

	Petitions signed Officially or under Seal.	Total Number.	No. of Signatures.
Local Government (Ireland)—for Alteration of Law	2	5	2,573
Lucifer Matches—for Restricting Sale	1	52	1,066
Married Women's Property Bill—in Favour	—	28	27,629
Merchant Seamen—for redress of grievances	—	9	1,381
Metropolis Gas Bill—Against	9	15	1,133
Metropolis Government—for Alteration of Law	—	241	973
Metropolitan Foreign Cattle Market Bill—Against	13	24	3,079
—— for Alteration	4	8	4,064
Metropolitan Foreign Cattle Market Bill—for Extension	3	9	1,153
—— in Favour	39	201	12,160
Newspapers—for Alteration of Law	4	43	2,498
Party Processions (Ireland) Act—for Repeal	—	3	1,033
Petroleum Act Amendment Bill—for Alteration	1	43	2,368
—— in favour	—	18	1,264
Poor Relief Bill—for Alteration	17	55	2,012
Post Office—for Inquiry	2	4	82,770
Regulation of Railways—Against proposed Bill	10	164	27,376
Turnpike Trusts Bill—Against	54	474	11,563
Weights and Measures—for Alteration of Law	2	23	2,385
Other Petitions on Miscellaneous Subjects	458	804	11,938
Total Miscellaneous	646	3,045	231,944
Total Number	1,776	17,864	2,611,427

XV.—CHRONICLE OF OCCURRENCES.

From November, 1867, *to November*, 1868.

Nov. 1. A dreadful cyclone in Bengal, spreading for a great distance round Calcutta. The rice crops were destroyed in its course, 30,000 native dwellings and 1,000 lives were destroyed in the town, the railway station, a part of the line, and the docks at Port Canning seriously damaged, and immense injury done to shipping and native craft along the coast.

18. The unfortunate island of St. Thomas, which had suffered so much on Oct. 29, experienced another fearful misfortune on this day. Several shocks of earthquake were felt, which injured many of the buildings; then the sea, which had retired, rushed back into the harbour in one wave, computed to be twenty feet high, carrying everything before it that the earthquake had spared. The American war steamer, the Monangahela, of 2,500 tons burthen, was left aground in the market-place when the water retired. A large number of vessels were wrecked, but the loss of life was comparatively small. Tortola, which had suffered in

October, was again seriously injured, as were Santa Cruz and other of the Virgin Islands.

23. Allen, Gould, and Larkin were executed at Manchester for the murder of the police-constable Brett. Apprehensions had been felt of some popular disturbances, but all passed off quietly.

Dec. 1 and 2. A violent storm prevailed on the east and south coast of England, extending from Newcastle to the Land's End, occasioning a great destruction of shipping and fishing vessels, and a very considerable loss of life.

2. A large portion of the French troops which had occupied Rome were assembled at Civita Vecchia for re-embarkation for France.

3. Strike of the London cabmen against the new regulation compelling them to carry lighted lamps at night. At 4 p.m. all cabs were withdrawn from the stands and streets; the latter appearing almost unoccupied by their absence; and great inconvenience was experienced at all the railway stations, from whence passengers with luggage were almost unable to issue. A meeting of proprietors was held in the evening at Exeter Hall, where it was stated that the expense, in addition to the duty and the licence (already amounting to 19*l.* 5*s.* for each cab) was more than they could bear. On the following day, a deputation had an interview with the Home Secretary, who undertook to have the compulsory clause repealed, and the cabs resumed their usual positions.

6. The Opera House, in the Haymarket, London, burnt down. The fire broke out at 11 p.m., and in about two hours the building was a shell, and the valuable scenery and fittings, with several opera scores, were destroyed. There had been no performance on that night; no lives were lost, but some of the neighbouring buildings were burnt down or damaged. The powerful steam fire engines, which were prompt in attendance, were effective in confining the fire within limits, and finally extinguishing it.

13. A daring attempt made to effect the escape of two prisoners, remanded on a charge of being parties to the murder of Brett, the police-constable at Manchester, by blowing up the wall of the exercise-yard of the House of Detention in Clerkenwell, London. A barrel of gunpowder was placed against the wall, and exploded. About 60 feet of the wall was thrown down between 3 and 4 p.m., the usual time for exercising the prisoners, but the hour had been changed, and the prisoners were in their cells. The effect, however, was terrible. Six persons were killed, and nearly 50 men, women, and children were more or less injured.

Jan. 22, 1868. A violent storm off the coast of England, extending from Aberdeen to the Land's End, occasioning an immense number of wrecks of coasters and fishing smacks, with a great loss of life. On Jan. 31 and Feb. 1 another raged, in nearly the same direction, and the metropolis suffered severely.

27. Mount Vesuvius after being in a state of eruption for a considerable time without doing any injury, burst its side opposite Castello Nuovo, burying a number of houses and shops, together with an omnibus and its passengers, which was passing. On the 28th, a landslip from the tufa hill that overhung the street of Santa Lucia, in Naples, buried it, and a large number of the inhabitants. Some slight shocks of earthquake had previously warned the dwellers of their danger.

Feb. 11. The Oxford Music Hall burnt. The damage estimated at 23,000*l.*, but insured only to the extent of 16,000*l.* As the fire broke out early in the morning, there was no person on the premises, and no lives were lost either in it or in the neighbouring houses which were damaged.

19. The prosecutions of the Irish newspapers, the *Weekly News* and *The Irishman*, for seditious articles, were terminated. The editors, Mr. Sullivan and Mr. Pigott, were found guilty, and on Feb. 22, Mr. Sullivan was sentenced to six months' imprisonment, and Mr. Pigott to twelve months', both to find securities for their good behaviour for two years, or to a further imprisonment of six months.

19. The important position of Humayita, on the Paraguay, forced by

the Brazilian and Allied fleet, after a long contest; one of the outworks of the fortress on the land side was also taken, with great loss of life on both sides; the fleet ascended to Asuncion, the capital, but which was not taken; and President Lopez maintained his position in front of Humayita.

March 1. W. P. Thompson and Patrick Mullady, were tried and found guilty of being accomplices in the murder of Brett, the policeman, in the Fenian outrage at Manchester on Sept. 18, 1867, while rescuing the prisoners Kelly and Deasy.

5. A serious riot took place on Ward's Island, New York, between a number of German and Irish emigrants. Emigrants not having immediate employment or friends to receive them, are placed on this island, where food and lodging is furnished under the care of government superintendents until employment is found for them. A quarrel arose between the two nationalities about a drink of water being refused by one to the other; a scuffle commenced, which grew into a riot and a fierce fight. There were about 2,000 on the island, and about 700 engaged in the contest. The few police present were unable to part the combatants; but fresh forces were sent from New York, 60 were captured, of whom 20 were the next day sent to the Penitentiary for a month, two of them for three months, and three discharged; while 65 others were sent off the island. Fortunately there were no deaths as far as known, but several persons were missing, and 14 with bad wounds were admitted into the hospital.

11 and 12. A terrific hurricane in the Mauritius: of 50 vessels in Port Louis harbour only three escaped without damage, churches were blown down, railway viaducts turned over, many of the sugar mills and boiling houses damaged, the crops nearly destroyed, at least 100 persons killed, and 50,000 rendered houseless.

12. His Royal Highness the Duke of Edinburgh who, in command of the Galatea, had been visiting several parts of Australia, while being entertained at a public pic-nic at Clontarf, near Sydney, New South Wales, given in support of a Sailors' Home, was shot in the back by a man named O'Farrell, who avowed himself a Fenian. The ball traversed the body for a distance of 12½ inches, and lodged; it was extracted on the 14th, and on the 20th the Duke was able to return on board his ship, which was then ordered home. On the 30th, O'Farrell was arraigned on the charge of wounding with intent to kill, and was hung on the 21st of April. He avowed before his execution that the act was entirely his own, and that he knew of no Fenian association in Sydney. Loyal addresses were almost simultaneously voted to the Queen from all parts of the colonies, and in New South Wales it was proposed to establish an Alfred Hospital in commemoration of the fortunate escape of the prince, for which 30,000*l.* was contributed upon the spot.

20. Capt. Mackay, charged with being concerned in the Fenian attack on the police at Ballyknockane in March, 1867, with the one on the Martello tower at Fota, in December last, and at other places between those dates, was found guilty after a trial at Cork, and sentenced to 12 years' penal imprisonment.

28. Sir R. Phillimore, in the Arches Court, gave judgment in the two cases of Mackonochie and Simpson, proceeded against for certain ritualistic observances, alleged to be violations of the Church of England ceremonies. The decision of Sir R. Phillimore was, that the elevation of the sacrament, the use of incense during the communion service, and the mixing of the water with the wine during the same service, were violations, and were prohibited accordingly; but that the use of two lighted candles on the altar during the administration of the sacrament was not a violation, and might be allowed. Notice of appeal to the Privy Council was given.

April 4. The University boat race, from Putney to Mortlake, came off, when Cambridge was again defeated after an unexciting race, as Oxford took the lead and kept it all the way.

10 to 17. At the earlier date, the troops of the Abyssinian expedition arrived in front of Magdala, and the first contest occurred, in which the troops of King Theodore were beaten. On the following day all the European prisoners were restored. On the 13th, Theodore having refused to surrender, Magdala was attacked and taken, after an ineffectual resistance, at the close of which Theodore shot himself. On the 17th, Magdala was burnt, all its defences destroyed, and the British army commenced its preparations for a return.

13. The grand volunteer review was held at Portsmouth. A fine day, arrangements punctually observed, a large attendance, and the nature of the ground chosen rendered the display the most effective that has yet taken place. The operations were to represent the attack and defence of a fortified position, for which the real works at Portsmouth afforded ample room. Thirty thousand troops were engaged, about two or three thousand of whom were regular troops lent for the occasion. All was admirably conducted, and concluded without accident.

15. The Prince and Princess of Wales arrived in Kingstown Harbour at 9.30 a.m., and were received by salutes from the fleet. They landed and proceeded to Dublin Castle, amid applauding crowds, and were received with the most enthusiastic affection. The route marked out was strictly adhered to, and the *cortége* passed through Bagot Street, Fitzwilliam Street, Merrion Square, East and North Clare Street, Nassau Street, College Green, and Dame Street, to the Castle. In the leading thoroughfares last named, the visible emblems of rejoicing were multiplied in endless variety. Every house blossomed with banners and festoons of every colour. Some of them were wreathed from the roofs with evergreen. Lines of flags and mottoes spanned the streets, and formed a brilliant contrast to the dark, dense masses of people who filled the space below. Words of "Welcome to Erin" were conspicuous. In the windows and balconies were gay clusters of spectators, who joined their expressive salutations to the greeting of the populace. With a confident reliance on the loyal and hospitable spirit of the people, which was fully appreciated, the Prince had no files of troops to keep a passage clear, but by their own spontaneous recognition of what was due to the royal visitor an open track was kept for the *cortége*, and when the escort had passed through, the crowd closed in behind it like a wave in the wake of the ship which cleaves it. At night the town was brilliantly illuminated. The next day the royal party went to Punchestown races in open carriages, meeting everywhere a similar enthusiastic reception. Both days were exceptionally fine. On Saturday, April 18, the Prince of Wales was installed a Knight of St. Patrick, with great ceremony, and amid much applause. After a round of visits and entertainments, the Prince and Princess left Dublin on the 24th, and were received at Carnarvon with an enthusiasm as great as they had met with in Ireland.

20. The trial commenced, at the Central Criminal Court, of Wm. Desmond, Timothy Desmond, Nicholas English, John O'Keefe, Michael Barrett, and Ann Justice, charged with murder in connection with the gunpowder explosion at the Clerkenwell House of Detention in December last. After a trial, lasting eight days, during which Ann Justice and O'Keefe were discharged, the jury delivered their verdict, acquitting all but Barrett, the man accused of firing the gunpowder. He was executed on May 26, at the Old Bailey, the last who will be hung in public; in future, executions are to take place in the interior of the prison.

28. Burke, Shaw, and Casey, were tried at the Central Criminal Court, on a charge of treason-felony. Burke and Shaw, under other names, were proved to have bought arms and ammunition to the value of nearly 2,000*l.*, and these were traced to the possession of Fenians, or stopped in transitu. On April 30, Casey was acquitted; Burke and Shaw were found guilty, and sentenced, the first-named to 15 years, and Shaw to seven years' penal imprisonment.

May 10, 11. A serious riot occurred on Sunday evening, at Ashton-

under-Lyne, occasioned by a number of Orangemen, excited by the Protestant missionary, Mr. Murphy, making a violent attack on the dwellings and chapels of the Roman Catholics, who, of course, resisted. Some desperate fighting took place, in which fire-arms as well as other weapons were used; and 26 persons wounded, some few fatally. The military were called out, and the rioting suppressed on the Tuesday; a number of the rioters were arrested.

12. The Queen laid the first stone of the new St. Thomas's Hospital at Lambeth, on the Thames' southern embankment.

June 2. The grand jury threw out the bill against Governor Eyre in the Crown Court, Westminster, after a long and careful charge from Mr. Justice Blackburn.

10. Michel Obrenovich, Prince of Servia, was shot in the public park, the Topshidere, near Belgrade, by a father and two sons, named Radovanovitch. The prince was in the company of his cousin, the Princess Anka Konstantinovich and her daughter; the mother was killed, and the daughter wounded, as were some of the persons who succeeded in arresting the assassins. The prince left no immediate heir, and the government was resumed by a regency, which had been previously named. He was ultimately succeeded by his nephew, Prince Milan Obrenovich.

25. The Duke of Edinburgh arrived in good health at Southampton.

July 6. The Duke de Montpensier and his wife, the sister of the Queen of Spain, arrested at Seville, and sent out of the country, only two hours being allowed to prepare for their departure. At the same time Marshal Serrano, and Generals Dulce, Cordova, Domingues, Zabala, and Serrano, the brother of the Marshal, were likewise arrested, charged with a conspiracy for deposing Queen Isabella. No proof is adduced. The Duke de Montpensier and his wife were allowed to pass into Portugal; the generals were exiled to the Canaries and other places.

31. A false alarm of fire at the Victoria Music Hall, in Manchester, occasioned a rush of the audience to effect their escape, which resulted in the death of 23 persons, and of 12 others being seriously injured. None of those killed exceeded 20 years of age, one was only 10, and two were girls. The deaths were all caused by suffocation or being trampled on.

Aug. 5. Queen Victoria, accompanied by the Princesses Louise and Beatrice and Prince Leopold, left Osborne for Cherbourg, on her way to Lucerne, viâ Paris, for the benefit of her health. She travelled under the title of Countess of Kent, and was visited on the 6th, at Paris, by the Empress Eugénie. Her Majesty arrived at Lucerne on the 8th, and took up her abode at the Hotel Wallis.

12, 13. After a succession of hot and dry weather for sixteen weeks, which had burnt up the pastures, dried up the ponds and wells, and damaged all the crops except the wheat and oats, a steady rain began to fall at various places. During this period of heat, the thermometer had registered as high as 96·2 in the shade, and there had been a large number of deaths by sunstroke, especially among the harvesters; the harvest, however, being almost entirely completed at this date in England and Wales.

13 to 16. A succession of destructive earthquakes took place in Peru and Ecuador. They extended from the town of Ibarra, in Ecuador, to Iquique, in Peru, a distance of 1,300 miles. A number of towns were destroyed or seriously damaged, the loss of life was estimated at 20,000 persons at least, while that of property was enormous. In October subscriptions were raised in the United Kingdom for the relief of the sufferers.

19. A fire broke out at 10 p.m., in Northumberland House, London, which destroyed the left wing, in which was the picture gallery, containing a collection of paintings by and after the old masters, besides a number of other valuable works of art. Some of these were destroyed, and others seriously damaged.

20. A frightful railway accident occurred near Abergele, on the Chester and Holyhead line. A portion of a goods train was detached while on an incline, and running backward met the Irish mail-train advancing at the rate of thirty miles an hour. One of the goods waggons was loaded with barrels of petroleum oil (which burst with the concussion), smashed the engine and three first-class carriages, and the oil set them in flames. Thirty-three passengers were so burnt that they could not be distinguished. Among them were Lord and Lady Farnham, and Walter Berwick, one of the judges of the Irish Bankruptcy Court. All the remains were buried in one common grave in the churchyard of Abergele. An inquest was held, which terminated in September, with a verdict of manslaughter against Richard Williams and Robert Jones, the breaksmen of the goods train, and a censure on the station-master.

28. Another cab-strike commenced. This time it was against the privileged admission of certain cabs to railway stations. The cabs on strike were withdrawn in the morning till after 11 a.m., and again after 2 p.m., to the great inconvenience and annoyance of the public. It lasted until Sept. 9, when the strike was abandoned, the leaders acknowledging that they had been defeated.

Sept. 11. The Queen arrived at Windsor on her return from Lucerne.

19. An insurrection commenced in Spain against the Queen and the Gonzalez-Bravo ministry. It was initiated by the fleet, which took possession of Ferrol, and threatened Cadiz, which, with Seville and the whole of Andalusia, soon joined the insurgents. On the 27th, a slight battle was fought at Alcolea, between Marshal Serrano (Duke de la Torre) and General Novaliches, who commanded the forces on the part of the Queen. Novaliches was wounded, while his soldiers fraternized on the following day with those of Serrano. On the 29th, Madrid rose, and declared in favour of the movement, and on the 30th the Queen abandoned the Spanish territory, and went to Pau, after paying a visit to the Emperor of the French at Biarritz. On Oct. 3, Serrano entered Madrid, a provisional government and ministry were formed, and a freely elected junta was organized for Madrid. On the 9th the *Official Gazette* published a programme of the contemplated measures—election by universal suffrage, liberty of religion and education, freedom of the press, and the right of peaceful association, the jury system in criminal trials, &c. On Oct. 17th Señor Nozaga arrived in Madrid, and was recognized as the chief of the provisional government. On Nov. 6 the Queen left Pau and took up her residence in Paris, accompanied by her husband and children, and attended by her confessor, Father Claret, and her intendant, Señor Marfori.

Oct. 30. A slight shock of earthquake felt in various parts of England and South Wales.

Nov. 13. Vesuvius, which had continued in a state of eruption from January, burst out with renewed violence, and did much mischief for several days; but the scene is described as being awfully magnificent.

26. A terrific explosion of a coal mine near Wigan, by which sixty lives were lost.

28. A violent eruption commenced from the north-east cone of Etna.

XVI.—NECROLOGICAL TABLE

OF LITERARY AND SCIENTIFIC MEN, ARTISTS, ETC.

1867.			Age
Oct.	23.	Bopp, Franz, philologist	76
Nov.	3.	Hanna, Dr. Wm., theology	75
	26.	Jeavons, Thomas, engraver	—
Dec.	12.	Daubeney, Dr. C. J. B., botanist	72
	23.	Poncelet, Jean Victor, French mathematician and engineer	89
	27.	Claudet, Antoine François, photographic artist	70

1867.			Age
Dec.	27.	Bowness, Wm., portrait painter	58
	29.	Marochetti, Baron, sculptor	63
	31.	M'Dougal, Prof. P. C., moral philosophy	61
1868.			
Jan.	2.	Doyle, John, caricaturist	70
	20.	Thompson, Charles Thurston, wood engraver	51
	23.	Kean, Charles John, actor	57
	28.	Head, Sir Edmund W., general literature	63
	28.	Stifter, Adolph, German novelist	61
Feb.	10.	Brewster, Sir David, natural philosophy	86
	11.	Walker, Michael, hydrographer	76
	13.	Herapath, Wm., chemist and toxicologist	72
	13.	Meryot, Charles, French artist	—
	13.	Foucault, J. B. Léon, natural philosophy	48
	13.	Stanley, C. K., landscape painter	—
	18.	Bouzales, Adrien, French artist	60
	25.	Townsend, Chauncy Hare, general literature	70
	25.	Crowe, Eyre Evans, history	69
	25.	Schreiber, Sophie, German tragedian	87
March	2.	Eberwein, Carl, German musician	81
	5.	Hughes, R. Ball, sculptor	62
	11.	Vander Hoeven, Professor J., zoologist	67
	23.	James, Charles S., scene-painter	36
	28.	Jesse, Edward, natural history, &c.	88
April	27.	Topliffe, Robert, musical composer	77
	29.	Burnet, John, engraver	83
	—	Carmichael, J. Wilson, marine landscape-painter	about 60
May	7.	Brougham, Henry Lord, politics, biography, and law	89
	7.	Cormenin, Louis Count de, French political writer	80
	11.	Crawford, John, ethnologist and philologist	85
June	4.	Ward, Nat. Bagshaw, botanist	77
	—	Plucher, Julius, mathematician	67
	15.	Wyon, James, medallist	64
	17.	Arnott, Prof. G. A. Walker, botanist	—
	25.	Matteucci, Prof. Carlo, mathematician	57
	—	Johnstone, Wm. B., artist	55
July	6.	Lover, Samuel, lyrical poet and novelist	71
	18.	Coyne, J. Stirling, dramatist	65
	21.	Thomas, Geo. Houseman, artist	43
	23.	Burnell, G. R., engineer	53
	24.	Cattermole, George, artist	68
	29.	Elliotson, Dr. John, physician	82
Aug.	3.	Perthes, Bouches de, archæologist	80
	8.	Mousseux, D., French dramatist	—
	10.	Cook, John Douglas, journalist	—
	12.	Stevens, Thaddeus, American statesman	75
	25.	Lennep, Jacob van, Dutch poet, historian, and philologist	62
Sept.	15.	Wehnert, E. H., artist	55
	24.	Milman, Dean Henry Hart, poet and historian	77
	27.	Walewski, Count A. F. J., political writer, &c.	58
Oct.	11.	Le Keux, Henry, engraver	81
	12.	Herapath, W. B., chemist	48
	19.	Cooke, Thomas, optician	62
Nov.	2.	Waterer, John, botanist	85
	13.	Rossini, Gioacchino, musical composer	76
	29.	Berryer, Pierre Antoine, legist	78

XVII.—Highest and Lowest Prices of the Principal Stocks from November 1867 to October 1868.

1867.	Bank Stock.	3 per Cent. Red.	3 per Cent. Cons.	New 3 per Cent.	India Stock.	Exchequer Bills. £1000.
November	247	93¼	95	93¼	225	31 premium.
	242	92¼	93	92⅓	220	27 ,,
December	244	93	93½	93	shut.	29 ,,
	239	92¼	91⅝	91⅝	,,	23 ,,
1868.						
January	249	93⅞	93⅝	93⅞	,,	27 ,,
	240	91¾	92⅛	91¾	,,	22 ,,
February	250	93⅞	93⅝	93⅞	,,	25 ,,
	247	91⅞	92⅝	91⅞	,,	11 ,,
March	251	92¼	93⅜	92⅛	,,	16 ,,
	249	91¾	92⅞	91¾	,,	8 ,,
April	246	92⅝	93½	92⅝	217	20 ,,
	243	91⅛	91⅞	91¾	215	5 ,,
May	249	94¼	96⅛	94⅝	218	17 ,,
	243	92¾	93⅝	92⅛	215	5 ,,
June	248½	95⅛	95⅛	95⅛	220	20 ,,
	240	94¼	94¾	94¼	213	13 ,,
July	248	95⅛	95⅛	95⅛	216	20 ,,
	240	94½	94⅜	94¼	212	14 ,,
August	249	94⅝	94⅛	94⅜	216½	20 ,,
	243	93¾	93⅛	93⅞	214½	13 ,,
September	247	93⅞	94⅜	94⅛	216½	20 ,,
	245	92½	93⅛	92½	214	15 ,,
October	245	93½	94⅜	93⅝	216	21 ,,
	242	92⅞	94¼	92⅞	214½	17 ,,

The Bank of England rate of discount which had remained at 2 per cent. for sixteen months, was raised to 2½ per cent. on November 19.

XVIII.—Average Price of Corn, per Imperial Quarter, in England and Wales, for one Week in each Month.

1867.	Wheat.	Barley.	Oats.
November 23 . .	68s. 11d.	41s. 5d.	25s. 8d.
December 21 . .	66 9	41 2	24 4
1868.			
January 18	13 MA 69	41 1	25 7
February 15 . .	73 0	42 5	25 9
March 14 . . .	73 1	43 3	27 2
April 18 . . .	73 8	43 10	29 0
May 16 . . .	74 3	44 4	28 8
June 13 . . .	67 6	42 2	30 4
July 18 . . .	65 0	37 4	30 11
August 15 . .	55 0	42 0	30 4
September 14 .	55 5	42 8	28 3
October 17 . .	53 8	45 7	27 1

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THE DEAN OF BRISTOL.
REV. JAMES C. BROWNE, D.C.L.
REV. J. L. CAMERON, M.A.
REV. ARTHUR P. PUREY-CUST, M.A.
REV. C. B. DALTON, M.A.
REV. W. H. DICKINSON, M.A.
ROBERT FEW, ESQ.
REV. J. D. GLENNIE, M.A.
CHRISTOPHER HODGSON, ESQ., M.A.
REV. CANON JENNINGS, M.A.
REV. CANON LONSDALE, M.A.
THE ARCHDEACON OF MAIDSTONE.
THE DEAN OF MANCHESTER.
REV. CHARLES MARSHALL, M.A.
REV. CANON NEPEAN, M.A.
THE ARCHDEACON OF NOTTINGHAM.
W. H. STONE, ESQ., M.D.
REV. CANON STONE, M.A.
CHARLES SUMNER, ESQ., M.A.
REV. JOSEPH TAYLOR, M.A.
REV. WILLIAM WEBSTER, M.A.
REV. S. C. WILKS, M.A.
REV. DAVID WILLIAMS, M.A.
F. L. WOLLASTON, ESQ., M.A.

Counsel.—THOMAS BOURDILLON, ESQ., M.A., Stone Buildings, Lincoln's Inn.
Solicitors.—MESSRS. LEE & BOLTON, No. 2, Broad Sanctuary, Westminster.
Auditors.—GEORGE ASTON, ESQ.—CHARLES BARBER, ESQ.—ROBERT J. LODGE, ESQ.—REV. ALEXANDER WILSON, M.A.
Bankers.—MESSRS. COUTTS & CO. *Actuary.*—STEWART HELDER, ESQ.
Consulting Actuary.—CHARLES ANSELL, ESQ., F.R.S.
Physician.—DR. STONE, 13, Vigo Street, W. *Secretary.*—REV. JOHN HODGSON, M.A.

The clergy and all others qualified to make Assurances upon Life in this Society are informed that Assurances upon Life may be made upon payment of Reduced Annual Premiums, viz., upon payment of "four-fifths" of the rates chargeable according to the Society's Table, *subject to certain conditions.* A Prospectus setting forth the table of reduced rates, and the special conditions referred to, may be had by application at the Office.

Bonus.—The whole available Bonus is the sole property of Life Assurers; no part whatever is taken from it to be shared amongst proprietors. At the end of every fifth year, profits are equitably apportioned amongst existing Life Assurances. By means of Bonus upwards of One Hundred of the earlier Life Assurances have been relieved altogether from the payment of Annual Premiums, and additions made to sums Assured; £200,500 was divided amongst Life Assurances in May, 1866.

Assurers have the privilege at the time of making an Assurance of selecting the mode in which the Bonus, whenever due, shall be applied, *i.e.*, either in an immediate Cash payment, or to the reduction of the Annual Premium, or to the increase of the Capital sum assured.

Next Bonus in 1871. Assurances made previously to such year will share therein.

ASSURANCES may be effected on LIVES, SURVIVORSHIPS, &c. &c., as stated in the Society's Prospectus, to any amount not exceeding £7,500.

Applications for Prospectuses, or further information, to be made at the Office, 2, BROAD SANCTUARY, WESTMINSTER.

This Society is strictly confined to the Clergy of the Church of England and of the Episcopal Church of Scotland, their Wives and Families, and the near relations of themselves and Wives.

Prospectuses, Bonus Accounts, &c., to be had at the Office.

THE

EAGLE INSURANCE COMPANY,

79, PALL MALL,

LONDON, S.W.

DIRECTORS.

The Right Hon. Sir JOHN YOUNG, Bart., K.C.B., *Chairman.*
WILLIAM FREDERICK DE LA RUE, Esq., *Deputy-Chairman.*

CHARLES BISCHOFF, Esq.
THOMAS BODDINGTON, Esq.
CHARLES CHATFIELD, Esq.
Sir J. BULLER EAST, Bart., D.C.L.
ROBERT A. GRAY, Esq.
WILLIAM AUGUSTUS GUY, M.D., F.R.S.
CHARLES THOMAS HOLCOMBE, Esq.
JOSHUA LOCKWOOD, Esq.
JAMES MURRAY, Esq.
PHILIP ROSE, Esq.
GEORGE RUSSELL, Esq.
THOMAS GODFREY SAMBROOKE, Esq.
Rear-Admiral TINDAL.

Auditors—THOMAS ALLEN, Esq. HENRY ROSE, Esq.

Medical Officers—J. W. OGLE, M.D. WM. COOKE, Esq., M.D., *Surgeon.*
GEORGE CURSHAM, M.D.

The Business of the Company comprises Assurances on Lives and Survivorships, granting of Contingent Annuities, Loans of Money on Mortgage, &c.

The realized Assets of this Company are upwards of **Three Millions** sterling.

The Annual Income is about a **Half-Million** sterling.

The number of existing Policies is upwards of **Twenty Thousand.**

The total Amount Assured exceeds **Thirteen Millions** sterling.

The Divisions of Surplus are Quinquennial, and the whole surplus (less twenty per cent. only) is distributed amongst the Assured.

At the last Division of Surplus the additions to the Sums Assured, under Policies effected upon the participating scale, ranged, according to the age of the life assured, from 20 to 70 per cent. of the Premiums paid.

The Premiums required, although moderate, entitle the Assured to 80 per cent. of the Quinquennial Surplus.

The Lives assured are permitted, in time of Peace, without extra charge, to reside in any country (Australia and California excepted) north of 33 degrees north latitude, or south of 33 degrees south latitude, or to pass by sea (not being seafaring persons by profession) between any places lying north of 33 degrees north latitude, or lying south of 33 degrees south latitude.

All Policy Stamps and Medical Fees required on effecting Assurances are paid by the Company.

By recent enactments, persons are exempt, under certain restrictions, from Income Tax, as respects so much of their income as they may devote to Assurances on Lives.

The Annual Reports of the Company's state and progress, Prospectuses, and Forms, may be had, or will be sent, post free, on application at the Office, or to any of the Company's Agents.

EQUITABLE ASSURANCE OFFICE,

TEMPORARY OFFICES:

11, NEW BRIDGE STREET, BLACKFRIARS.

Directors.

THE RIGHT HON. LORD TREDEGAR, *President.*

WILLIAM FREDERICK POLLOCK, Esq., and JAMES SPICER, Esq., *Vice-Presidents.*

JOHN CHARLES BURGOYNE, Esq.
LORD GEORGE CAVENDISH, M.P.
FREDERICK COWPER, Esq.
CHARLES CURLING, Esq.
GEORGE FENNING, Esq.
RICHARD GOSLING, Esq.
JOHN HARVEY, Esq.
PETER MARTINEAU, Esq.
JOHN ALLDIN MOORE, Esq.
GEORGE SCOVELL, Esq.
JOHN COYSGARNE SIM, Esq.
JOHN CHARLES TEMPLER, Esq.

The EQUITABLE, established in 1762, was one of the earliest Offices on the Mutual principle.

The entire profits are divisible among its members, no portion of the same being diverted either for dividends on shares, as in 'Proprietary' offices, or for 'Commission' to agents.

During the century of its existence it has paid £18,300,000 in claims, and £17,500,000 for bonuses on the same.

The Invested Capital on the 31st of December, 1867, consisted of—

£1,100,000 in the 3 per Cents.
£2,749,521 Cash on Mortgage.
£640,000 Cash advanced on Debentures.
£178,050 Cash advanced on security of Policies.

The Reserve at the last rest, in December, 1859, exceeded £770,000, as a basis for future divisions.

Under the bye-law of the 19th of December, 1816, the oldest 5,000 Policies are admitted to participation in the bonuses.

New Assurers in the current year (1869) will be placed among that number after payment of their first premium, and will become entitled to a rateable share in the bonus as soon as they have paid six Premiums.

Loans on Policies.—The Directors will make advances on deposit of the Policies.

TABLE OF ANNUAL PREMIUMS for assuring the sum of £100 upon the Life of any Healthy Person from the Age of Eight to Sixty-seven.

Age.	For the whole Life.	Age.	For the whole Life.	Age.	For the whole Life.	Age.	For the whole Life.
8 to	£. s. d.		£. s. d.		£. s. d.		£. s. d.
14	1 17 7	28	2 11 1	42	3 11 8	56	5 10 1
15	1 18 7	29	2 12 3	43	3 13 8	57	5 14 0
16	1 19 8	30	2 13 5	44	3 15 9	58	5 18 2
17	2 0 8	31	2 14 7	45	3 17 11	59	6 2 8
18	2 1 8	32	2 15 9	46	4 0 2	60	6 7 4
19	2 2 8	33	2 17 1	47	4 2 7	61	6 12 4
20	2 3 7	34	2 18 5	48	4 5 1	62	6 17 9
21	2 4 6	35	2 19 10	49	4 7 10	63	7 3 7
22	2 5 4	36	3 1 4	50	4 10 8	64	7 9 10
23	2 6 3	37	3 2 10	51	4 13 6	65	7 16 9
24	2 7 1	38	3 4 6	52	4 16 5	66	8 4 1
25	2 8 1	39	3 6 2	53	4 19 7	67	8 12 1
26	2 9 1	40	3 7 11	54	5 2 10		
27	2 10 1	41	3 9 9	55	5 6 4		

☞ *A Court of Directors is held every* Wednesday, *from Eleven to One o'Clock, to receive Proposals for new Assurances; and a Short Account of the Society may be had on Application, personally or by post, at the Office.*

EQUITY AND LAW LIFE ASSURANCE SOCIETY,

18, LINCOLN'S-INN FIELDS, LONDON, W.C.

ESTABLISHED 1844.

CAPITAL £1,000,000, FULLY SUBSCRIBED.

TRUSTEES.

THE RIGHT HON. SIR WILLIAM ERLE.
THE RIGHT HON. SIR FREDERICK POLLOCK, Bart.
THE RIGHT HON. SIR J. TAYLOR COLERIDGE.
CHARLES PURTON COOPER, Esq., Q.C., LL.D., F.R.S.
GEORGE CAPRON, Esq.

DIRECTORS.

GEORGE LAKE RUSSELL, Esq., *Chairman.*
JOHN MOXON CLABON, Esq., *Deputy-Chairman.*
Actuary and Secretary.—THOMAS BOND SPRAGUE, Esq., M.A.

The NEW BUSINESS of **1867** comprised Insurances for **£357,031**; and the Premiums received thereon amounted to **£11,137 13s. 6d.**

The total INCOME of **1866** was **£113,770**, and the outgoings of every description **£53,876.** The available ASSETS at the end of the year were **£615,821.**

The EXPENSES of MANAGEMENT now amount to only *Four per cent.* on the Income.

The realized PROFITS are ascertained every Five Years; and NINE-TENTHS of the whole are divided among the Assured. As considerably more than one-tenth of the Profits is derived from Policies which do not participate in the Profits, it will be seen that *the Assured have greater advantages in this Society than if they formed a Mutual Insurance Company*, dividing among themselves the whole of the Profits derived from their own Policies.

At the DIVISION of PROFITS, to 31st December, 1864, the sum of £62,961 6s. was divided among the Assured, holding Policies for £1,339,608; and the Reversionary Bonuses added to the Policies amounted to £112,000.

THE FOLLOWING TABLE SHOWS THE TOTAL BONUSES ADDED TO POLICIES of £1,000 EACH UP TO 31ST DEC., 1864:—

Age at Entry.	Sum Assured.	NUMBER OF PREMIUMS PAID.			
		Twenty.	Fifteen.	Ten.	Five.
	£	£ s.	£ s.	£ s.	£ s.
20	1000	303 10	228 0	161 10	71 10
30	1000	342 10	250 10	176 0	77 0
40	1000	385 0	280 10	197 0	85 0
45	1000	411 10	303 10	210 0	90 10
50	1000	438 0	334 0	231 0	99 10
55	1000	.. ..	382 10	265 0	113 10
60	1000	.. ..	450 10	316 10	133 10

The PREMIUMS are calculated for every half-year of Age.

The CONDITIONS of the POLICIES allow persons whose lives are insured to reside in any part of the world distant more than 33° from the Equator.

The Business of the Society includes the PURCHASE and the Granting of LOANS upon the security of LIFE INTERESTS and REVERSIONS; also the Granting of IMMEDIATE ANNUITIES.

The ANNUAL REPORTS of the Directors are regularly printed, with full accounts of the Receipts and Expenditure, and may be obtained by written or personal application at the Office.

The Guardian Fire & Life Assurance Company.

ESTABLISHED 1821.

No. 11, LOMBARD STREET, LONDON, E.C.

SUBSCRIBED CAPITAL, £2,000,000.

Directors.

Chairman—WILLIAM STEVEN, Esq.
Deputy-Chairman—FREDERICK HALSEY JANSON, Esq.

HENRY HULSE BERENS, Esq.
HENRY BONHAM-CARTER, Esq.
CHARLES WILLIAM CURTIS, Esq.
CHARLES F. DEVAS, Esq.
FRANCIS HART DYKE, Esq.
Sir WALTER R. FARQUHAR, Bart.
JAMES GOODSON, Esq., M.P.
ARCHIBALD HAMILTON, Esq.
THOMPSON HANKEY, Esq., M.P.
RICHARD M. HARVEY, Esq.
JOHN G. HUBBARD, Esq., M.P.
G. J. SHAW LEFEVRE, Esq., M.P.
JOHN MARTIN, Esq.
ROWLAND MITCHELL, Esq.
JAMES MORRIS, Esq.
ABRAHAM J. ROBARTS, Esq.
HENRY VIGNE, Esq.

Auditors.

HENRY S. THORNTON, Esq.; CORNELIUS PAINE, Jun., Esq.; NOEL WHITING, Esq.

Secretary—THOMAS TALLEMACH, Esq. *Actuary*—SAMUEL BROWN, Esq.

Superintendent of Fire Department—ISAAC DELVALLE, Esq.
Physician—Dr. J. RUSSELL REYNOLDS, 38, Grosvenor Street, W.
Solicitors—Messrs. PARKIN and PAGDEN, 5, New Square, Lincoln's Inn, W.C.
Surveyor—J. JENNINGS, Esq., Langham Street, W.
Bankers—Messrs. MARTIN & Co., 68, Lombard Street; Messrs. COUTTS & Co., 59, Strand.

LIFE DEPARTMENT.

Under the Provisions of an Act of Parliament, this Company now offers to new Insurers EIGHTY PER CENT. OF THE PROFITS, AT QUINQUENNIAL DIVISIONS, OR A LOW RATE OF PREMIUM, without participation of Profits. The next Valuation will be made at Christmas next.

The total Reversionary Bonuses allotted to the Assured at the past Divisions of Profit of the Company amounted to £1,150,000.

At the last Quinquennial valuation, at Christmas, 1864, the Life Assurances in force, exclusive of Bonuses thereon, amounted to upwards of £4,500,000, the Income from the Life Branch £212,000 per annum, and the Life Assurance Fund exceeded £1,656,000 invested in first class securities. Life Assurance Policies had been issued for nearly £13,000,000, being an average of £300,000 annually for the whole period of 43 years, and £4,176,000 had been paid in claims.

Example of Annual Premiums for the Assurance of £100.

Age not above	At Death.		At Age of 60, or upon Death before, without Profits.	Age not above	At Death.		At Age of 60, or upon Death before, without Profits.
	With Profits.	Without Profits.			With Profits.	Without Profits.	
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
20	2 1 0	1 13 3	2 5 9	40	3 5 0	2 17 0	5 3 9
25	2 5 4	1 17 4	2 14 2	45	3 14 11	3 6 11	7 2 2
30	2 10 7	2 2 7	3 5 5	50	4 8 0	4 0 0	10 19 3
35	2 17 0	2 9 0	4 0 9	60	6 7 2	6 0 0	....

For Rates for intermediate ages, and other particulars, see Prospectus and Actuary's Report.

N.B.—The limits for Foreign Residence and Travel have been recently greatly extended, and in certain cases Policies may be issued free from *all* restrictions.

No expense incurred beyond payment of premium.

FIRE DEPARTMENT.

Insurances against loss and damage by Fire are effected upon every kind of Property at home and abroad.

The Annual Duty to Government is now reduced one-half, viz., to 1*s.* 6*d. for* £100.

The total Annual charge for Premium and Duty on ordinary risks is at the rate of 3*s.* for £100.

No expense is incurred on effecting an Insurance, or in transferring Insurances from other Offices, beyond the payment of the Premium and Annual Duty.

Forms of Proposal, Prospectus, &c., may be obtained from the Office.

T. TALLEMACH, *Secretary.*

THE LONDON ASSURANCE CORPORATION,

For Fire, Life, & Marine Assurances.

Incorporated by Royal Charter, A.D. 1720.

OFFICES—No. 7, ROYAL EXCHANGE, E.C.; AND No. 7, PALL MALL, S.W.

JAMES BLYTH, Esq., *Governor.*
EDWIN GOWER, Esq., *Sub-Governor.*
DAVID POWELL, Esq., *Deputy-Governor.*

Directors.

NATH. ALEXANDER, Esq.
J. A. ARBUTHNOT, Esq.
HENRY BONHAM BAX, Esq.
HARVEY BRAND, Esq.
EDWARD BUDD, Esq.
ALFRED D. CHAPMAN, Esq.
MARK W. COLLET, Esq.
SIR F. CURRIE, Bart.
F. G. DALGETY, Esq.
BONAMY DOBREE, Esq.
JOHN ENTWISLE, Esq.
GEORGE L. M. GIBBS, Esq.
ROBERT GILLESPIE, Esq.
HARRY GEO. GORDON, Esq.
A. C. GUTHRIE, Esq.
JOHN A. HANKEY, Esq.
LOUIS HUTH, Esq.
CHARLES LYALL, Esq.
CAPT. R. W. PELLY, R.N.
WILLIAM RENNIE, Esq.
P.F.ROBERTSON, Esq., M.P.
WILLIAM B. WATSON, Esq.

Secretary.—JOHN LAURENCE, Esq. *Actuary.*—ARTHUR H. BAILEY, Esq.

Underwriter.—JOHN ANTHONY RUCKER, Esq.

Manager of the Fire Department.—THOS. B. BATEMAN, Esq.

Physician.—EDWARD CLAPTON, M.D., 4, St. Thomas's-street, Southwark.

West End Office, No. 7, Pall Mall, S.W.

HENRY KINGSCOTE, Esq.

LIFE DEPARTMENT.

The expenses of management are paid by the Corporation, and not charged to the Life Assurance Funds—an advantage afforded by no other Office.

Assurances may be effected without Participation in Profits, at low rates of Premium, or with Participation in Profits, upon either of the following plans, viz.:

The Profits being appropriated as an Annual Abatement of Premium on Policies of Five Years' standing; the abatement from the original Premium for the year 1868 was at the rate of 40 per cent.

The Profits being appropriated at the end of every Five Years, either in increase of the Sum Assured, or as an immediate Cash payment. At the last division made to the 31st December, 1865, the Cash Bonus amounted to more than 28 per cent. of the Premiums paid during the quinquennial period, the corresponding Reversionary Bonus averaging nearly two per cent. per annum on the Sum Assured.

Enlarged limits for Foreign Travelling and Residence, without any extra charge; also, moderate and uniform rates for all Tropical climates have been adopted.

FIRE DEPARTMENT.

FIRE INSURANCES effected at Moderate Rates upon every Description of Property.

MARINE DEPARTMENT.

MARINE INSURANCES can be effected at the HEAD OFFICE of the Corporation, and at CALCUTTA, MADRAS, BOMBAY, MAURITIUS, HONG KONG, and SHANGHAI.

PROVIDENT LIFE OFFICE,

No. 50, REGENT STREET, LONDON, W.

ESTABLISHED 1806.

Invested Capital, £1,772,363. Annual Income, £218,375.

Bonuses Declared, £1,780,651.

Claims Paid since the Establishment of the Office, £4,164,064.

The Profits, subject to a trifling deduction, are divided among the Insured.

Out of £264,243, the amount of profit upon the recent division, the sum of £256,035 was allotted among the various Policies entitled to Bonus.

THE PROVIDENT is thus shown to be a most successful *Mutual Office*, with the additional security afforded to the Public by a Subscribed Capital of a *Quarter of a Million*, coupled with that supervision of its affairs which can only be given by a body of Shareholders, and which the almost daily exposure of the abuses of Life Insurance shows to be especially called for.

Examples of Bonuses added to Policies issued by

THE PROVIDENT LIFE OFFICE.

Number of Policy.	Date of Policy.	Annual Premium.	Sum Insured.	Amount with Bonus Additions.
		£ s. d.	£	£ s. d.
4,718	1823	194 15 10	5,000	11,658 9 2
5,532	1825	36 16 8	1,000	2,182 11 8
5,744	1825	155 16 8	4,000	8,883 5 4
5,915	1826	18 8 4	500	1,062 19 7
6,701	1829	40 1 8	1,000	2,081 4 6
8,452	1834	38 19 2	1,000	1,806 15 10
10,605	1841	31 16 8	500	896 6 2
11,102	1842	59 1 8	1,000	1,690 17 4
12,264	1845	22 13 4	500	732 11 8

The Forms of Proposal for Insurance are prepared with a view to give the life proposed the least possible trouble.

INSURANCES may be effected in any part of the Kingdom by a Letter addressed to THE SECRETARY, No. 50, Regent Street, London, W.

PRUDENTIAL ASSURANCE COMPANY,

62, LUDGATE HILL, LONDON, E.C.

TRUSTEES.

Rev. JAMES GILLMAN. | JOHN PLUMB, Esq.
EDGAR HORNE, Esq.

DIRECTORS.

Rev. JAMES GILLMAN, B.C.L., 14, Wimbledon Park Road, Wandsworth, *Chairman.*
THOS. BULLMAN COLE, Esq., 29, St. Augustine Road, Camden Square.
H. J. GIBBINS, Esq., Rosendale Lodge, West Dulwich.
EDGAR HORNE, Esq., Parliament Street.
RICH. THOMAS PUGH, Esq., Thames Bank, Pimlico.
THOMAS REID, Esq., 3, Fenchurch Buildings, E.C.
PETER SERS, Esq., Kentish Town.

AUDITORS.

RICHARD ATKINSON, Esq. | J. ALLANSON, Esq.

Bankers—CITY BANK, Ludgate Hill Branch.

Medical Adviser—ROBERT CROSS, M.D., 20, New Street, Spring Gardens.

Solicitors—CHARLES HANSLIP, Esq., 25, Great James Street, Bedford Row.
Messrs. PHILLIPS and SON, 11, Abchurch Lane.
Messrs. BARNARD and CO., 148, York Road, Lambeth.

Surveyors—Messrs. CRAWTER. | *Secretary*—HENRY HARBEN, Esq.

ANNUAL INCOME, £195,000.

New Premium Income, progressing at the rate of £50,000 a-year.

THE extraordinarily rapid progress of this Company attests the estimation in which it is held by the public, and the large amount of New Business transacted is the best evidence of the popularity of its principles, and its adaptability to meet the requirements of Assurers.

The Policies in this Company are made absolutely indisputable to the extent of the principal, interest, and costs, not exceeding the sum Assured, immediately they are assigned to an innocent holder for a *bonâ fide* consideration; or when not assigned they become absolutely indisputable after they have been in existence Five Years.

Permission is granted in time of Peace, without extra charge, for the lives Assured, to reside in any Country (Australia and California excepted) north of 33 degrees north latitude, or south of 33 degrees south latitude; or to pass by sea (not being seafaring persons by profession) between any places lying north of 33 degrees north latitude, or lying south of 33 degrees south latitude.

At the Division of Profits for the five years ending 31st December, 1866, a Bonus averaging 37 per cent. was declared. This was appropriated by a reduction of the Premium for the whole duration of the Policy, or by an addition to the sum assured.

A Liberal Commission allowed to Solicitors and others introducing Business.

AGENTS WANTED IN UNREPRESENTED DISTRICTS.

HENRY HARBEN, *Secretary.*

THE ENGLISH ASSURANCE COMPANY,

PALMERSTON BUILDINGS, 93, Bishopsgate St., London, E.C.

CAPITAL, £500,000.

CHAIRMAN—H. G. ASHHURST, Esq., Merchant, London.
DEPUTY-CHAIRMAN—HENRY BROCKETT, Esq. (of Lloyd's), London.

LIFE DEPARTMENT.

Intending Assurers are requested to observe the following advantages offered by this Company;—

1. Moderate Premiums.
2. Reduced Premiums for the first five years, without an accumulating debt.
3. A special scheme for business-partnerships.
4. Bonuses applied to make the Policies payable during life-time.
5. Liberal provision for the non-forfeiture of Policies.
6. A fixed Surrender value after three years.
7. Eighty per cent. of profits divided amongst the Assured.
8. Prompt settlement of claims.
9. Freedom from unnecessary restrictions as to residence and foreign travelling.
10. Whole World Policies at a moderate charge.

(*For detailed particulars see Book Prospectus.*)

FIRE DEPARTMENT.

INSURANCES may be effected on Property at HOME and ABROAD.

EACH proposal is decided upon according to its merits, and irrespective of the rates fixed by the combination of Fire Insurance Companies, known as the Tariff Association.

HOUSEHOLD FURNITURE and Personal Property is charged 2*s.* per cent. in brick-built houses.

RENT may be insured on the usual terms.

GAS EXPLOSION.—Losses by Explosion of Gas paid for.

LIGHTNING.—Losses by Fire arising from Lightning made good.

TRANSFER OF POLICIES may be effected without expense to the Assured.

THE GOVERNMENT DUTY is now only 1*s.* 6*d.* per cent. It is chargeable on all Fire Insurances, except Farm Stock and Hospitals, &c.

Forms of Proposal and Prospectuses, with Tables of Rates in both Departments, may be had on application; also detailed List of Directors and Branch Committees and Officers.

JOHN E. LEYLAND, *General Manager.*

Energetic Agents Wanted in Unrepresented Districts. Terms Liberal.

THE

General Reversionary & Investment Company.

Office—No. 5, WHITEHALL, LONDON, S.W.

ESTABLISHED 1836.

Further Empowered by Special Act of Parliament, 14 and 15 Vict. cap. 130.

CAPITAL £500,000.

DIRECTORS.

Chairman—GEORGE PERCY ELLIOTT, Esq.
Deputy-Chairman—CHARLES THOMAS HOLCOMBE, Esq.

THOMAS BLACKALL, Esq., M.D.
JOHN CHAVE LUXMOORE, Esq.
Colonel JOSEPH W. JASPER OUSELEY.
THOMAS GODFREY SAMBROOKE, Esq.
SEYMOUR TEULON, Esq.
HENRY WALMISLEY, Esq.

Auditors—WM. R. BARKER, Esq., GEO. HUGHES, Esq., and CHAS. H. SAVORY, Esq.
Bankers—Messrs. DRUMMOND.
Solicitors—Messrs. C. J. & H. SHOUBRIDGE, 1, Lincoln's Inn Fields, W.C.

The business of this Company consists in the PURCHASE of, or LOANS upon, REVERSIONARY INTERESTS, vested or contingent, in *Landed* or *Funded Property*, or *Securities*; also

LIFE INTERESTS in *Possession*, as well as in *Expectation*; and

POLICIES of INSURANCE upon LIVES.

Loans upon Reversions may be obtained either at an Annual Interest, or in consideration of deferred charges, payable upon the *Reversions* falling in.

IMMEDIATE ANNUITIES are likewise granted upon the latter principle to persons entitled to Reversionary Interests, who may thus obtain an income until their property falls into possession, without being called upon for any payment until that event.

Prospectuses and Forms of Proposals may be obtained from the Secretary, to whom all communications should be addressed.

By order of the Board of Directors,
WM. BARWICK HODGE, *Actuary and Secretary.*

GOVERNESSES' BENEVOLENT INSTITUTION.

INCORPORATED BY ROYAL CHARTER,

WITH POWER TO HOLD LAND BY GIFT, PURCHASE, OR BEQUEST.

BOARD OF MANAGEMENT.

THE HON. WILLIAM ASHLEY.
PATRICK BLACK, Esq., M.D.
THE REV. ALFRED J. BUSS, B.A.
B. BOND CABBELL, Esq., F.R.S., F.S.A.
ARTHUR RISDON CAPEL, Esq.
JAMES CAPEL, Esq.
F. PATEY CHAPPELL, Esq.
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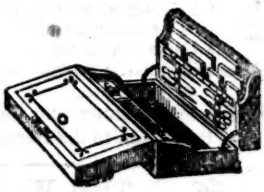

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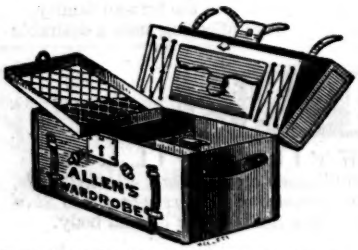

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